




Cape Fear

Return to
the community

Community

1997-98
Catalog
and
Student
Handbook

College



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CAPE FEAR COMMUNITY COLLEGE

411 NORTH FRONT STREET
WILMINGTON, NORTH CAROLINA 28401-3993
(910) 251-5100

CATALOG 1997-1998

CAPE FEAR COMMUNITY COLLEGE

NOTE

The catalog and handbook are published for the purpose of providing information about the College and its programs. Announcements contained herein are subject to change without notice and may not be regarded in the nature of binding obligations on the College or the State. Efforts will be made to keep changes to a minimum, but changes in policy by the North Carolina State Legislature, the North Carolina Community College System, or by local conditions may make some alterations in curricula, fees, etc., necessary.

NON-DISCRIMINATION POLICY

Cape Fear Community College's Board of Trustees and Staff recognize the importance of equal opportunity in all phases of the College's operations and have officially adopted a position of nondiscrimination on the basis of race, color, age, religion, national origin, physical handicap, or other non-relevant factors. This policy applies to both students and employees at all levels of the school's operations.

VISITORS

Visitors are always welcome at Cape Fear Community College. The Student Development Office will provide guide service for groups or individuals on weekdays between 8:00 AM and 5:00 PM and will answer questions about the school and its programs. Prospective students are requested, when possible, to notify the Student Development Office when they are going to visit. This will ensure that appropriate staff will be available for questions. The school is open until 10:00 PM Monday through Friday.

Cape Fear Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award associate degrees. The address and telephone number of the Southern Association of Colleges and Schools is 1866 Southern Lane, Decatur, GA 30033-4097 (404) 679-4500.

Cape Fear Community College is a member institution of the North Carolina Community College System, the League for Innovation in Community Colleges, and the American Association of Community and Junior Colleges.

"ADMISSION TO ANY AND ALL EDUCATIONAL PROGRAMS OFFERED BY CAPE FEAR COMMUNITY COLLEGE IS MADE WITHOUT REGARD TO RACE, COLOR, SEX, RELIGION, NATIONAL ORIGIN, PHYSICAL HANDICAP OR OTHER NON-RELEVANT FACTORS."

May 1997

Cape Fear Community College

17,000 copies of this public document were printed at a cost of \$11,610.20 or \$0.68 each.

Affirmative Action / Equal Opportunity College

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Foreword

The entire Cape Fear Community College family - faculty and staff, trustees, fellow students, and friends and supporters - joins me in welcoming your consideration of Cape Fear Community College as you develop specific plans for your future. Small classes, personable college staff, and lots of individual attention in combination with your dedicated efforts, is a winning formula.

Faculty and staff and over 300 advisory committee members, representing over 160 regional employers, continually review CFCC's programs. This insures that the education and training you receive at Cape Fear Community College is relevant to the workplace of today and tomorrow.

Getting off to a good start is most important. After you've reviewed the information in this catalog, our counselors and faculty advisors welcome the chance to assist you.

Your future begins now — welcome to Cape Fear Community College!

Eric B. McKeithan
President, Cape Fear Community College

Calendar 1997-98

Fall Semester 1997

In-Service	August 14-15, 1997
Registration	August 18-19, 1997
Classes Begin	August 20, 1997
Drop/Add Period	August 20-21, 1997
Holiday	September 1, 1997
Advisement Period	November 10-21, 1997
Pre-registration for Spring	November 24, 1997
Holiday	November 27-28, 1997
Classes End	December 12, 1997
Semester Break	December 15, 1997-January 2, 1998

Spring Semester 1998

Registration	January 5, 1998
Classes Begin	January 6, 1998
Drop/Add Period	January 6-7, 1998
Holiday	January 19, 1998
Spring Break	March 9-13, 1998
Holiday	April 10, 1998
Advisement Period (Summer and Fall)	March 30-April 9, 1998
Pre-registration for Summer	April 14, 1998
Pre-registration for Fall (currently enrolled students)	April 16, 1998
Classes End	May 6, 1998

Graduation	May 8, 1998
Semester Break	May 7-15, 1998

Summer Session 1998

Registration (Summer Term/First Mini Session)	May 18, 1998
Classes Begin	May 19, 1998
Drop/Add Period	May 19-20, 1998
Holiday	May 25, 1998
Advisement Period (Second Mini Session)	June 15-June 18, 1998
Pre-registration-Second Mini Session	June 22, 1998
First Mini Session Ends	June 26, 1998
Registration-Second Mini Session	June 29, 1998
Classes Begin-Second Mini Session	June 29, 1998
Drop/Add Period	June 29-30, 1998
Holiday	July 3, 1998
Advisement Period-Fall Semester	July 13-July 17, 1998
Pre-registration for Fall (currently enrolled students)	July 21, 1998
Classes End (Summer Term/Second Mini Session)	August 5, 1998
Graduation	August 7, 1998

Administration

Dr. Eric B. McKeithan President,
Cape Fear Community College

STATE BOARD OF COMMUNITY COLLEGES

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Mrs. Barbara S. Schwartz Wilmington, NC

President, Student Government Association CFCC

Mission Statement for the North Carolina Community College System

The mission of the North Carolina Community College System is to open the door to opportunity for individuals seeking to improve their lives and well-being by providing: education, training and retraining for the workforce, including basic skills and literacy education, occupational and pre-baccalaureate programs; support for economic development through services to business and industry; and services to communities and individuals which improve the quality of life.

*Adopted by the State Board of Community Colleges, 10/93.
Revised 3/10/94, 4/15/95*

Mission Statement for Cape Fear Community College

Cape Fear Community College is an open door, comprehensive community college that strengthens the academic, economic, social and cultural life of the citizens of New Hanover and Pender counties by promoting enrichment through life-long learning.

As a member of the North Carolina Community College System, Cape Fear Community College fully supports the system mission and fulfills its purposes by:

- Focusing on vocational, technical, pre-baccalaureate, basic skills and literacy education, and continuing education programs and services;
- Recruiting, enrolling, advising and retaining a diverse student body;
- Recruiting, retaining and developing a qualified and diverse faculty and staff who are dedicated to quality education and service to the College and the community;
- Evaluating existing programs and implementing new curricula to serve the changing needs of the service area;
- Providing financial, academic, and technological programs and support services that are accessible and help students succeed; and

- Interacting and cooperating with others to encourage, promote and facilitate economic and community development.

*Approved by the CFCC Board of Trustees, 3/23/95.
Revised 1/18/96.*

The College

History

The College was established as the Wilmington Industrial Education Center in 1959 under the direction of the late George H. West. It was raised to technical institute status on July 1, 1964 and renamed Cape Fear Technical Institute. To more clearly reflect the role and mission of the College, the Board of Trustees recommended that the College again change its name. The New Hanover County Commissioners concurred with the Board, and on January 1, 1988 the College officially became Cape Fear Community College (CFCC).

CFCC is one of fifty-eight such institutions operated by the State under the direction of the State Board of Community Colleges and administered by a local Board of Trustees. The System was authorized by the North Carolina General Assembly, Chapter 115D (originally 115A) of the General Statutes.

The College was one of the original industrial education centers and was operated from 1959 until 1963 by the New Hanover Board of Education. Following a favorable vote of the citizens of the County on a \$575,000 bond issue to provide a technical institute facility and a \$0.02 tax levy for its support, \$500,000 in matching funds from the 1963 Vocational Education Act Appropriation was authorized to be applied toward facility construction.

The College continued to operate in county-owned buildings until new facilities were completed in the summer of 1967. These facilities included a four-story main building, a separate automotive shop, and a pier and docking facility for the school's training vessels.

In 1969 the College was granted status as a Special Purpose Institute by the Southern Association of Colleges and Schools. The following year the Southern Association's Commission on Colleges granted membership to the College contingent upon successfully completing a self-study within the next five years. This was accomplished and at the Association's Annual Meeting in 1975, the College was granted full membership status.

In the General Election of 1972, the citizens of New Hanover County approved another bond issue for \$3,676,000 for the expansion of the College's facilities. This resulted in construction of a seven story building that provided valuable additional classrooms, shops, and office space, with one floor devoted to the Learning Resources Center.

In 1982 and 1989 the New Hanover County Commissioners responded favorably to a request made by the Board of Trustees for facilities to house the electronic and instrumentation technologies curricula and the renovation of one of its buildings to house classrooms, lab, and office space for the new Associate Degree Nursing program.

In 1986 and again in 1988 the State Legislature appropriated \$300,000 for the construction of a satellite facility in Pender County. With the Pender County Commissioners donating 11 acres of land, \$200,000, and an additional \$75,000 for landscaping, to that already appropriated by the Legislature, a 15,000 square foot building was opened at the Pender County Campus in Burgaw in June 1990.

The citizens of North Carolina voted on November 2, 1993 to pass a \$8.3 million bond referendum for CFCC. On March 8, 1994 the residents of New Hanover County passed another bond referendum which will provide an additional \$13.9 million to provide four major buildings for the College.

In March 1994, Cape Fear Community College began day and evening classes in the vacant Topsail Middle School building. This gave Pender County a second satellite unit for the College. The CFCC campus in Burgaw serves the citizens of western Pender County and the new Hampstead Campus provides classes and instruction for Pender County residents on the eastern side of the county.

In 1994-95, the College acquired the entire city block across North Front Street from the Galehouse Building, 7.2 acres at 700 North Front Street, and a 4000 square foot building and lot adjoining previously acquired property housing electronics and instrumentation curricula.

The number of people served annually by the College has risen from approximately 750 during its early years of operation to more than 21,000 in recent years.

Location

Cape Fear Community College is conveniently located in the heart of Wilmington on North Front Street. The campus extends from Front Street to the deep water channel of the Cape Fear River and is bordered by Red Cross Street on the north and Walnut Street on the south.

The Fred J. Galehouse Building houses the administrative offices, business office, classrooms, chemical and criminalistic laboratories, and part of the shop areas. The M.J. McLeod Building houses the Student Development office, Learning Resources Center (library), laboratories, classrooms, cafeteria, and the student lounge area. Two additional shop buildings (the Richard L. Burnett and the William T. Emmart) are located at the water's edge, and a pier extends out to the deep-water channel to provide mooring for the school's training vessels. The buildings are of all-masonry construction and designed especially for trade and technical programs. All classrooms and offices are air-conditioned for year-round comfort.

Shops and Equipment

The shops and laboratory areas were carefully planned to provide large, well-ventilated, and industry-type training facilities.

Equipment for all shops, laboratories, test areas, drafting rooms, and for the training ships is selected to conform with the current tools and devices of industry. Students will find that ample opportunity is provided in all trade and technical curricula for skill-building practice in using modern, industrial tools and machines. Classrooms for study of the academic related subjects are conveniently located; a well-stocked technical library is available both day and night.

Admissions

Admissions Statement

CFCC operates under an open door policy. This means that the College offers instruction to all adults. So if you are 18 years of age or older, or if you have a high school degree or equivalent, and can benefit from courses and programs offered by our College, WE WELCOME YOU.

While CFCC advises all students to seek a high school diploma or equivalent, admission to diploma or certificate programs may be granted without prior completion. Exceptions are students entering the Dental Assisting, Pharmacy Technology, Phlebotomy and Practical Nursing programs; these students must hold high school diplomas or a recognized equivalency.

Students who do not wish to enter degree or diploma programs or are high school students who have special concurrent enrollment permission may enter CFCC as "special credit" students. Students admitted as special credit students may carry only a part-time course load and must have their registra-

tion cards approved by a counselor. Special credit students must meet course prerequisites including ASSET testing. Admission as a special credit student does not constitute admission to any curriculum program. Special credit students may attempt no more than 18 credit hours without meeting admissions requirements. Students who exceed this number will not be permitted to register until admissions requirements are met. Students who enter a curriculum program from special credit status, veterans, and Financial Aid recipients must meet all admissions requirements prior to time of registration. Exceptions are programs which do not culminate in a degree, diploma or certificate. Admissions requirements do not apply to these programs.

Admissions Process

1. Application

An application for admission must be submitted prior to registration.

2. Official high school or General Educational Development (GED) Transcript.

An official high school or GED transcript must be sent directly to CFCC from the high school last attended, school which proctored the GED, or state-level GED agency.

3. Official College Transcript(s)

Official college transcripts from all institutions of higher education previously attended must be submitted to CFCC.

4. ASSET Test

Students are required to take the ASSET test prior to enrollment. (There is no charge for the test.) Assessments are used to determine whether students need to enhance their skills in academic areas. Prior college course completion could eliminate this requirement. Students will need to consult with counselors.

5. Medical Examination

A medical history is required for specific program admission or completion. Students are notified of this requirement as applicable to their programs of study. Selected programs within the College may require drug screening prior to final acceptance into the program. Contact Admissions and Records for further information.

Selective Admission/Health Service Programs

Certain CFCC academic programs have additional entrance requirements. Students applying for admission to those selective admission programs must meet general college admission requirements as well as specific program requirements.

Each of the selective admission programs requires that applicants be a high school graduate or have a GED, meet the minimum placement test scores required for the specific degree program and complete the program application process by the deadline established for that particular program.



Selective admission programs include: Associate Degree Nursing, Dental Assisting, Pharmacy Technology, Phlebotomy, Practical Nursing, Radiography, and through a consortium agreement, Physical Therapist Assistant.

Students may visit the Counseling Office for specific program requirements and applications.

Admission of Transfer Students

1. Transfer students must complete CFCC's admission requirements.

2. Credits are transferred from regionally accredited institutions. Courses are transferred that compare in content, quality and credit hours to those offered at CFCC.

3. Only courses with a grade of "C" or better will be transferred from other institutions to CFCC.

4. Credits transferred from other institutions will be denoted on the students CFCC transcript by CT (Course Transfer). Grades achieved at other institutions will not be used in the grade point average computation at CFCC.

5. Credit gained through advanced placement testing, experiential learning or proficiency testing will not be transferred directly as course work.

6. Students should submit copies of all transcripts early enough so that evaluation of transfer credit can be completed prior to registering for classes. Transfer credit for those transcripts received during the registration process will be completed by the end of the first academic session of enrollment.

7. To receive a degree from CFCC, transfer students must complete at least 25 percent of program requirements at CFCC.

Admission of Transient Students

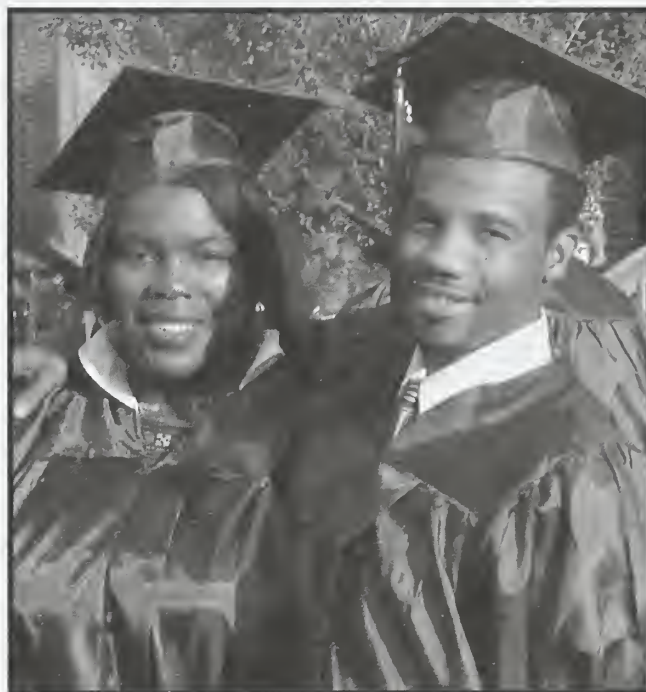
Transient students are those who are admitted and enrolled in another college or university and wish to enroll in CFCC as a full-time student for one academic session.

Transient Students must:

1. Submit a completed CFCC Admission Application
2. Submit written permission from their home institution to enroll in CFCC
3. Provide verification of completion of applicable prerequisites prior to enrolling in CFCC courses

Provisional Admission

Students whose official transcripts have not been received by the Admissions and Records Office at the time of registration may be admitted provisionally. All admissions requirements must be met within thirty (30) calendar days from the first day



of the academic session. Those students who do not meet admissions requirements within thirty (30) calendar days may be dropped from courses and will not be allowed to register until all admission requirements are met. Provisionally admitted students are required to take the asset assessment prior to registration.

Admission of Out-of-State Students

Out-of-state students are admitted under the same admission standards as residents of North Carolina. Residency classification for out-of-state students will be determined by the laws of the State of North Carolina. At the time of admission, the Director of Enrollment Management will determine the residency status of the applicant based on the information supplied on the application and any other data deemed appropriate by the Director of Enrollment Management. If the applicant chooses to appeal the classification assigned by the Director of Enrollment Management, he/she must file a written appeal to the Director of Enrollment Management within ten (10) days following the first notification of residency status. The Residency Status Subcommittee of the Judicial Board will review the appeal and make a final determination as to the applicants residency classification.

Applicants wishing additional information about the laws of North Carolina governing residency classification for students should make inquiry to the Admissions and Records Office, where copies of the law are maintained.

Admission of International Students

The school is authorized under Federal law to admit non-immigrant alien students. Contact the Director of Enrollment Management for admission procedures.

PROGRAMS OF STUDY

<u>AUTHORIZED PROGRAMS OF STUDY</u>	<u>Code</u>	<u>Degree</u>	<u>Diploma</u>	<u>Certificate</u>
Accounting	A25100	AAS		
Air Conditioning, Heating, and Refrigeration Technology	A35100		*	
Architectural Technology	A40100	AAS		
Associate Degree Nursing	A45100	AAS		
Autobody Repair	D60100		*	
Automotive Systems Technology	A60160	AAS	*	
Basic Law Enforcement Training	C55120			*
Boat Building	D35120		*	
Business Administration	A25120	AAS		
Carpentry	D35180		*	
Chemical Technology	A20120	AAS		
College Transfer		AA		
Computer Engineering Technology	A40160	AAS		
Criminal Justice Technology	A55180	AAS		
Dental Assisting	D45240		*	
Early Childhood Associate	A55220	AAS		
Electrical/Electronics Technology	A35220	AAS		
Electronics Engineering Technology	A40200	AAS		
Electronics Engineering Technology (Instrumentation Concentration)	A4020A	AAS		
Hotel and Restaurant Management	A25240	AAS		
Industrial Maintenance Technology	A50240		*	
Interior Design	A30220	AAS		
Machining Technology	A50300	AAS		*
Marine Technology	A15320	AAS		
Masonry	D35280		*	
Mechanical Engineering Technology	A40320	AAS		
Mechanical Engineering Technology (Drafting and Design Concentration)	A4034A	AAS		
Medium/Heavy Duty Vehicles Systems Technology (Marine Systems Concentration)	A6024C		*	
Medical Transcription	D25320		*	
Office Systems Technology	A25360	AAS		
Paralegal Technology	A25380	AAS		
Pharmacy Technology	D45580		*	
Phlebotomy	C45600			*
Practical Nursing	D45660		*	
Radiography	A45700	AAS		
Real Estate	A25400			*
Real Estate Appraisal	C25420			*
Truck Driver Training	C60300			*
Welding Technology	A50420		*	

AA - College Transfer

AAS - (Associate in Applied Science Degree) Two-Year Program

Diploma - One-Year Program

ASSOCIATE IN ARTS

Associate in Arts Degree Program

The Associate in Arts Degree program is designed to provide a broad background in the core courses of a liberal arts curriculum comprising the first two years of a four-year baccalaureate degree.

The program is recommended for students who plan to pursue programs of study in business administration, business education, education, law, liberal arts, or any other discipline leading to the Bachelor of Arts Degree.

Since requirements vary, it is the responsibility of each student to determine the specific requirements of the senior institution to which he or she plans to transfer. The student should also be advised that while individual courses may be considered for transfer credit, most institutions give preference to applicants who have completed the Associate in Arts Degree.

A student is eligible to be granted the Associate in Arts Degree upon completion of 64-65 semester-hour credits, including all required minimums outlined in the following listing.

All statements in this publication are announcements of present policies and may change at any time without prior notice. Cape Fear Community College reserves the right to change program requirements and offerings, regulations, and fees.

Required General Education Core Semester Hours Credit

English Composition.	6
ENG 111 Expository Writing	3
ENG 112 Argument-Based Research	3
or	
ENG 114 Professional Research and Reporting	3

Humanities/Fine Arts 12

Select four courses from at least three of the following discipline areas. One course must be a literature course.

1. ART 111 Art Appreciation	3
ART 114 Art History Survey I	3
ART 115 Art History Survey II	3
ART 117 Non-Western Art History	3
2. DRA 111 Theatre Appreciation	3
DRA 211 Theatre History I	3
DRA 212 Theatre History II	3
3. ENG 131 Introduction to Literature	3
ENG 231 American Literature I	3

ENG 232 American Literature II	3
ENG 241 British Literature I	3
ENG 242 British Literature II	3
ENG 251 Western World Literature I	3
ENG 252 Western World Literature II	3
ENG 261 World Literature I	3
ENG 262 World Literature II	3
4. FRE 111 Elementary French I	3
FRE 112 Elementary French II	3
FRE 211 Intermediate French I	3
FRE 212 Intermediate French II	3
SPA 111 Elementary Spanish I	3
SPA 112 Elementary Spanish II	3
SPA 211 Intermediate Spanish I	3
SPA 212 Intermediate Spanish II	3
5. HUM 110 Technology and Society	3
HUM 160 Introduction to Film	3
6. MUS 110 Music Appreciation	3
MUS 112 Introduction to Jazz	3
MUS 113 American Music	3
7. PHI 215 Philosophical Issues	3
PHI 240 Introduction to Ethics	3
8. REL 110 World Religions	3
REL 221 Religion in America	3

Three (3) semester hours in Speech/Communication may be substituted for three (3) semester hours in Humanities/Fine Arts:

COM 110 Introduction to Communication	3
or	
SPH 231 Public Speaking	3

Social/Behavioral Sciences 12

Select four courses from at least three of the following areas. One course must be a history course.

1. ANT 210 General Anthropology	3
2. ECO 151 Survey of Economics	3
ECO 251 Principles of Microeconomics	3
ECO 252 Principles of Macroeconomics	3
3. HIS 115 Introduction to Global History	3
HIS 121 Western Civilization I	3
HIS 122 Western Civilization II	3
HIS 131 American History I	3
HIS 132 American History II	3
4. POL 120 American Government	3
POL 210 Comparative Government	3
5. PSY 150 General Psychology	3
PSY 241 Developmental Psychology	3

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PSY 281	Abnormal Psychology	3
6. SOC 210	Introduction to Sociology	3
SOC 213	Sociology of the Family	3
SOC 220	Social Problems	3

Natural Sciences/Mathematics 14

Natural Sciences 18

Select two courses, including accompanying laboratory work, from the biological and physical science disciplines.

1. AST 111	Descriptive Astronomy	3
AST 111A	Descriptive Astronomy Lab	1
2. BIO 111	General Biology I	4
BIO 112	General Biology II	4
3. CHM 131	Introduction to Chemistry	3
CHM 131A	Introduction to Chemistry Lab	1
CHM 132	Organic and Biochemistry	4
4. GEL 111	Introductory Geology	4
GEL 113	Historical Geology	4
GEL 120	Physical Geology	4
5. PHY 110	Conceptual Physics	3
PHY 110A	Conceptual Physics Lab	1
PHY 151	College Physics I	4
PHY 152	College Physics II	4

Math. 16

Select at least one course in introductory mathematics; a second course may be selected from other quantitative subjects, such as computer science and statistics.

1. MAT 140	Survey of Mathematics	3
MAT 161	College Algebra	3
MAT 171	Precalculus Algebra	3
MAT 175	Precalculus	4
2. CIS 110	Introduction to Computers	3
MAT 151	Statistics I	3
MAT 162	College Trigonometry	3
MAT 172	Precalculus Trigonometry	3
MAT 175	Precalculus	4

Total General Education Requirement

in Semester Hours 44

Other Required Courses (Listing subject to change)...20-21

Other required hours should be selected (in conjunction with pre-major articulation agreements).

ACA 111	College Student Success	1
ACC 120	Principles of Accounting I	4
ACC 121	Principles of Accounting II	4
ART 121	Design I	3
ART 131	Drawing I	3
ART 132	Drawing II	3

ART 240	Painting I	3
ART 261	Photography I	3
BUS 228	Business Statistics	3
CJC 111	Introduction to Criminal Justice	3
CJC 121	Law Enforcement Operations	3
CJC 141	Corrections	3
EDU 116	Introduction to Education	3
ENG 125	Creative Writing I	3
ENG 126	Creative Writing II	3
MAT 263	Brief Calculus	3
MUS 271	Music History I	3
MUS 272	Music History II	3
PED 110	Fit and Well for Life	2
POL 130	State & Local Government	3
PSY 118	Interpersonal Psychology	3
PSY 244	Child Development I	3
PSY 245	Child Development II	3
SOC 242	Sociology of Deviance	3
SWK 110	Introduction to Social Work	3

Total Semester Hours of Other Required Courses...20-21

Total Requirements for the AA degree 64-65

Students must meet the receiving university's language and/or health and physical education requirements, if applicable, prior to or after transfer.



ASSOCIATE IN APPLIED SCIENCE

Accounting

The Accounting curriculum is designed to provide students with the knowledge and the skills necessary for employment and growth in the accounting profession. Using the "language of business," accountants assemble and analyze, process, and communicate essential information about financial operations.

In addition to course work in accounting principles, theories, and practice, students will study business law, finance, management, and economics. Related skills are developed through the study of communications, computer applications, financial analysis, critical thinking skills, and ethics.

Graduates should qualify for entry-level accounting positions in many types of organizations including accounting firms, small businesses, manufacturing firms, banks, hospitals, school systems, and governmental agencies. With work experience and additional education, an individual may advance in the accounting profession.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 115	Mathematical Models	3
	Behavioral/Social Science Elective	3
	Humanities/Fine Arts Elective	3

II. Major Courses

ACC 120	Principles of Accounting I	4
ACC 121	Principles of Accounting II	4
ACC 131	Federal Income Taxes	3
ACC 220	Intermediate Accounting I	4
ACC 221	Intermediate Accounting II	4
ACC 225	Cost Accounting	3
BUS 115	Business Law	3
CIS 111	Basic PC Literacy	2
ECO 151	Survey of Economics	3
ACC 150	Computerized General Ledger	2
ACC 269	Auditing	3
BUS 121	Business Math	3
BUS 137	Principles of Management	3
BUS 225	Business Finance	3
BUS 240	Business Ethics	3
CIS 120	Spreadsheet I	3
CIS 152	Database Concepts and Applications	3

Students are required to take at least 3 SHC from among the following:

BUS 239	Business Applications Seminar	2
BUS 280	R.E.A.L. Small Business	4
COE 111	Co-op Experience I	1
COE 121	Co-op Experience II	1
COE 131	Co-op Experience III	1
OST 136	Word Processing	2

Total Credits 71

FALL SEMESTER I

BUS 115
ENG 111
BUS 121
CIS 111
ACC 120

FALL SEMESTER II

ACC 131
ACC 150
ACC 220
BUS 225
ECO 151
Behavioral/Social Sci. Elect.

SPRING SEMESTER I

ENG 114
MAT 115
Humanities/Fine Arts Elect
CIS 152
ACC 121

SPRING SEMESTER II

ACC 221
ACC 225
ACC 269
BUS 137
Business Elective
BUS 240
CIS 120

Students must take at least 3 SHC Business Electives from among the following:

BUS 239	COE 121
BUS 280	COE 131
COE 111	OST 136

Architectural Technology

The Architectural Technology curriculum prepares individuals with knowledge and skills that can lead to employment in the field of architecture or one of the associated professions.

Students receive instruction in construction document preparation, materials and methods, environmental and structural systems, building codes and specifications, and computer applications as well as complete a design project. Optional courses may be provided to suit specific career needs.

Upon completion, graduates have career opportunities within the architectural, engineering, and construction professions as well as positions in industry and government. At participating universities, graduates may continue their education toward a bachelor's degree in related fields.



Semester Hour Credits

I. General Education Course

Behavioral/Social Science Elective	3
ENG 111 Expository Writing	3
ENG 114 Professional Research & Reporting	3
Humanities/Fine Arts Elective	3
MAT 121 Algebra/Trigonometry I	3

II. Major Courses

ARC 111 Intro to Architectural Technology	3
ARC 112 Construction Materials and Methods	4
ARC 113 Residential Architectural Technology	3
ARC 114 Architectural CAD	2
ARC211 Light Construction Technology	3
ARC 213 Design Project	4
ARC 230 Environmental Systems	4
ARC 114A Architectural CAD Lab	
ARC 212 Commercial Construction Technology	3
ARC 220 Advanced Architect CAD	2
ARC 236 Architectural Mech./Elec. Technology	2
ARC 264 Digital Architecture	2
ARC 250 Survey of Architecture	3
CIS 111 Basic PC Literacy	2
CIV 110 Statics & Strength of Materials	4
MAT 122 Algebra/Trigonometry II	3
PHY 131 Physics/Mechanics	4

Total Credits 64

FALL SEMESTER I

ARC 111
ARC 112
CIS 111
ENG 111
Humanities/Fine Arts Elective
MAT 121

FALL SEMESTER II

ARC 211
ARC 212
ARC 220
ARC 230
ARC 250
PHY 131

SPRING SEMESTER I

ARC 113
ARC 114
ARC 114A
ENG 114
MAT 122
Behavioral/Social Science Elective

SPRING SEMESTER II

ARC 213
ARC 236
ARC 264
CIV 110

Associate Degree Nursing

The Associate Degree Nursing curriculum provides individuals with the knowledge and skills necessary to provide nursing care to clients and groups of clients throughout the lifespan in a variety of settings.

Courses will include content related to the nurse's role as provider of nursing care, as manager of care, as member of the discipline of nursing, and as a member of the interdisciplinary team.

Graduates of this program are eligible to apply to take the National Council Licensure Examination (NCLEX-RN) which is required for practice as a Registered Nurse. Employment opportunities include hospitals, long term care facilities, clinics, physician's offices, industry, and community agencies.

Semester Hour Credits

I. General Education Courses

ENG 111 Expository Writing	3
ENG 114 Professional Research & Reporting	3
Humanities/Fine Arts Elective	3
PSY 150 General Psychology	3
BIO 168 Anatomy & Physiology I	4
BIO 169 Anatomy & Physiology II	4

II. Major Courses

NUR 110 Nursing I	8
NUR 120 Nursing II	8
NUR 130 Nursing III	7
NUR 210 Nursing IV	10
NUR 220 Nursing V	10
BIO 175 General Microbiology	3
PSY 241 Developmental Psych	3

III. Other Required Courses

CIS 111 PC Literacy	2
**NUR 189 Nursing Transition	2
** This course required only for LPN's transitioning into the program	

Total Credits 71 or 73

FALL SEMESTER I

BIO 168
NUR 110
PSY 150

FALL SEMESTER II

NUR 210
BIO 175
ENG 111

SPRING SEMESTER I

BIO 169
NUR 120
PSY 241

SPRING SEMESTER II

NUR 220
ENG 114
Humanities/Fine Art Elect

SUMMER SEMESTER I

NUR 130

CIS 111

Automotive Systems Technology

The Automotive Systems Technology curriculum prepares individuals for employment as Automotive Service Technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic course work. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared to take the ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 115	Oral Communications	3
Humanities/Fine Art Elective	3	
MAT 120	Geometry and Trigonometry	3
Social/Behavioral Science Elective	3	

II. Major Courses

AUT 151	Brake Systems	3
AUT 141	Suspension & Steering Systems	4
AUT 161	Electrical Systems	4
AUT 181	Engine Performance-Electrical	3
AUT 183	Engine Performance-Fuels	3
AUT 281	Advanced Engine Performance	3
AUT 111	Basic Auto Technology	2
AUT 115	Engine Fundamentals	3
AUT 164	Automotive Electronics	3
AUT 171	Heating and Air Conditioning	3
AUT 116	Engine Repair	2
AUT 221	Automatic Transmissions	4
AUT 222	Advanced Auto Drive Trains	3
AUT 271	Advanced Heating & Air Conditioning	3
AUT 231	Manual Drive Trains/Axles	3
AUT 241	Adv. Chassis/Suspensions	4
CIS 111	Basic PC Literacy	2

Total Credits: 67

FALL SEMESTER I

AUT 111
AUT 115
AUT 151
AUT 164
ENG 115

FALL SEMESTER II

AUT 221
AUT 222
AUT 271
Social/Behav Science Elect
MAT 120

SPRING SEMESTER I

AUT 171
AUT 116
AUT 141
AUT 161
CIS 111

SPRING SEMESTER II

AUT 281
AUT 231
ENG 111
AUT 241

SUMMER SEMESTER I

AUT 181
AUT 183
Humanities/Fine Art Elective

Business Administration

The Business Administration curriculum is designed to introduce students to the various aspects of the free enterprise system. Students will be provided with fundamental knowledge of business functions, processes, and an understanding of business organizations in today's global economy.

Course work includes business concepts such as accounting, business law, economics, management, and marketing. Skills related to the application of these concepts are developed through the study of computer applications, communication, team building, and decision making.

Through these skills, students will have a sound business education base for lifelong learning. Graduates are prepared for employment opportunities in government agencies, financial institutions, and large to small business or industry.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
MAT 115	Mathematical Models	3
Behavioral/Social Science Elective	3	
Humanities/Fine Arts Elective	3	

II. Major Courses

ACC 120	Principles of Accounting I.....	4
BUS 115	Business Law	3
BUS 137	Principles of Management	3
MKT 120	Principles of Marketing	3
ECO 151	Survey of Economics	3
ACC 121	Principles of Accounting II	4
ACC 131	Federal Income Taxes	3
ACC 150	Computerized General Ledger	2

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ACC 225	Cost Accounting	3
BUS 225	Business Finance	3
BUS 121	Business Math	3
BUS 239	Business Applications Seminar	2
CIS 111	Basic PC Literacy	2
CIS 120	Spreadsheet I	3
CIS 152	Database Concepts and Applications	3
OST 131	Keyboarding	2
OST 136	Word Processing	2
ACC 220	Intermediate Accounting I	4
BUS 230	Small Business Management	3
BUS 240	Business Ethics	3
BUS 280	R.E.A.L. Small Business	4
COE 111	Co-op Work Experience I	1
COE 121	Co-op Work Experience II	1
COE 131	Co-op Work Experience III	1

Total Credits 66

FALL SEMESTER I

BUS 115
ENG 111
BUS 121
CIS 111
ACC 120
OST 131

FALL SEMESTER II

ACC 131
ACC 150
ACC 225
BUS 225
ECO 151
MKT 120

SPRING SEMESTER I

ENG 114
OST 136
MAT 115
Behav/Social Science Elect
CIS 152
ACC 121

SPRING SEMESTER II

ACC 225
Business Elective
BUS 137
BUS 239
CIS 120
Humanities/Fine Arts Elect

Students must take at least 3 SHC Business Electives from the following:

ACC 220	BUS 280	COE 131
BUS 230	COE 111	
BUS 240	COE 121	

Chemical Technology

The Chemical Technology curriculum prepares individuals for work as analytical technicians in chemical laboratories associated with chemical production, environmental concerns, pharmaceuticals, or general analysis.

Course work includes general chemistry, organic chemistry, introductory chemical engineering, qualitative analysis, and quantitative analysis, including such instrumental techniques as spectroscopy (UV-Vis, IR, AA) and chromatography (GC, LC). Students also utilize computerized data collection, reduction, and graphic presentation.

Graduates should qualify as entry-level chemical laboratory technicians. Their duties may include chemical solution



preparation, raw material, product, or environmental sampling, and/or sample testing via wet chemistry or instrumental techniques.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 115	Oral Communication	3
HUM —	Humanities Elective	3
MAT 121	Algebra/Trigonometry I	3
MAT 122	Algebra/Trigonometry II	3
PSY 150	Introduction to Psychology	3
PHY 121	Applied Physics I	4

II. Major Courses

BIO 110	General Biology I	4
BIO 175	Microbiology	3
CTC 111	Basic Chemistry I	7
CTC 112	Basic Chemistry II	7
CTC 120	Organic Chemistry I	2
CTC 140	Unit Processes	6
CTC 220	Organic Chemistry II	5
CTC 230	Organic Chemistry III	5
CTC 240	Industrial Analysis I	5
CTC 250	Industrial Analysis II	5
HEA 111	First Aid & Safety	2

Total Credits 73

FALL SEMESTER I

CTC 111
ENG 111
MAT 121
PSY 150

FALL SEMESTER II

BIO 110
CTC 220
CTC 240
PHY 121

SPRING SEMESTER I

CTC 112
CTC 120
MAT 122
ENG 115

SPRING SEMESTER II

BIO 175
CTC 230
CTC 250
Humanities Elective

SUMMER SEMESTER I

CTC 140
HEA 111

Computer Engineering Technology

The Computer Engineering Technology curriculum provides the skills required to install, service, and maintain computers, peripherals, networks, and microprocessor and computer controlled equipment. It includes training in both hardware and software, emphasizing operating systems concepts to provide a unified view of computer systems.

Course work includes mathematics, physics, electronics, digital circuits and programming, with emphasis on the operation, use, and interfacing of memory and devices to the CPU. Additional topics may include communications, networks, operating systems, programming languages, Internet configuration and design, and industrial applications.

Graduates should qualify for employment opportunities in electronics technology, computer service, computer networks, server maintenance, programming, and other areas requiring a knowledge of electronic and computer systems. Graduates may also qualify for certification in electronics, computers, or networks.

Semester Hour Credits

I. General Education Course		
MAT 121	Algebra/Trigonometry I	3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
PSY 118	Interpersonal Psychology	3
HUM 110	Technology and Society	3

II. Major Courses

ELC 131	DC/AC Circuit Analysis	5
MAT 122	Algebra/Trigonometry II	3
PHY 131	Physics - Mechanics	4
CET 111	Computer Upgrade/Repair I	3
CSC 133	C Programming	3
ELN 131	Electronic Devices	4
ELN 133	Digital Electronics	4
ELN 232	Intro to Microprocessors	4
CET 110	Intro To CET	1
CET 211	Computer Upgrade/Repair II	3
CIS 111	Basic PC Literacy	2
CSC 248	Advanced Internet Programming	3
CIS 130	Survey of Operating Systems	3
CET 212	Integrated Mfg. Systems	2
CSC 134	C++ Programming	3
CIS 172	Intro to the Internet	3
ELN 237	Local Area Networks	3
ELN 238	Advanced LANs	3

Select 2 SHC from the following courses:

EGR 285	Design Project	2
COE 111	Co-Op Work Experience 1	1
COE 121	Co-Op Work Experience 2	1

Total Credits **71**

FALL SEMESTER I

ELC 131
MAT 121
CET 111
CET 110
ENG 111
CIS 111

FALL SEMESTER II

ELN 237
ELN 232
CSC 134
CIS 130
PSY 118

SPRING SEMESTER I

CSC 133
CET 211
ELN 131
MAT 122
CIS 172

SPRING SEMESTER II

ELN 238
CET 212
CSC 248
ENG 114
EGR 285
HUM 110

SUMMER SEMESTER I

ELN 133
PHY 131

Criminal Justice Technology

The Criminal Justice Technology curriculum is designed so that it may be a multi-faceted program of study. It may consist of study options in corrections, law enforcement, and security services.

The curriculum is designed with a core of courses to afford one the opportunity to acquire basic knowledge, skills and attitudes in the generally accepted subject areas associated with a two-year study of correctional services, law enforcement services and security services. It includes subjects such as interpersonal communications, law, psychology, and sociology.

In addition to core subjects, the correctional services option provides an opportunity to study other generally accepted subjects indigenous to a two-year correctional services program such as confinement facility administration, correctional law, counseling, probation-parole services and rehabilitation options. Similarly, the law enforcement option provides an opportunity to study other generally accepted subjects included in a two-year law enforcement services program such as criminal behavior, criminal investigation, patrol operation, traffic management, and other aspects of law enforcement administration and operations. The security services option provides an opportunity to study other generally accepted subjects related to a two-year security services program such as accident prevention and safety management, common carrier protection, fire prevention, private security, industrial security, retail security, security systems, and surveillance.

Job opportunities are available with federal, state, county, and municipal governments. In addition, knowledge, skills and attitudes acquired in this course of study qualify one for job opportunities with private enterprise in such areas as industrial,

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retail and private security.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
MAT 120	Geometry/ Trigonometry I	3
SOC 210	Intro To Sociology	3
COM 231	Public Speaking	3
Humanities/Fine Art Elective		3
BIO 110	Principles of Biology	4

II. Major Courses

CJC 111	Introduction to Criminal Justice	3
CJC 112	Criminology	3
CJC 113	Juvenile Justice	3
CJC 131	Criminal Law	3
CJC 212	Ethics & Community Relations	3
CJC 221	Investigative Principal	4
CJC 231	Constitutional Law	3
CJC 132	Court Proc & Evidence	3
CJC 214	Victimology	3
CJC 213	Substance Abuse	3
CJC 250	Forensic Biology	2
CJC 121	Law Enforcement Operations	3
CJC 114	Investigatory Photo	2
CJC 215	Organization & Adm.	3
CJC 120	Interviewing and Interrogation	2
CJC 222	Criminalistics	3
CJC 141	Corrections	3
CIS 111	Basic PC Literacy	2

Total Credits 70

CRIMINAL JUSTICE TECHNOLOGY (DAY)

FALL SEMESTER I

ENG 111
CJC 111
CJC 132
CJC 214
Humanities/Fine Arts Elect

FALL SEMESTER II

CJC 131
CJC 114
CJC 215
CJC 120
SOC 210
COM 231

SPRING SEMESTER I

CJC 231
BIO 110
CJC 250
CJC 213
CIS 111

SPRING SEMESTER II

CJC 112
CJC 222
CJC 141
MAT 120

SUMMER SEMESTER I

CJC 113
CJC 212
CJC 221
CJC 121

CRIMINAL JUSTICE TECHNOLOGY

(NIGHT PROGRAM) BEGINNING FALL, 1997 AND EACH ODD NUMBER YEAR THEREAFTER.

FALL SEMESTER I

ENG 111
CJC 111

FALL SEMESTER III

CJC 121
CJC 131

SPRING SEMESTER I

CJC 132
CJC 214

SPRING SEMESTER III

CJC 114
CJC 215

SUMMER SEMESTER I

Humanities/Fine Arts Elect
CJC 231

SUMMER SEMESTER III

CJC 120
SOC 210

FALL SEMESTER II

BIO 110
CJC 250

FALL SEMESTER IV

COM 231
CJC 112

SPRING SEMESTER II

CJC 213
CJC 113

SPRING SEMESTER IV

CIS 111
MAT 120

SUMMER SEMESTER II

CJC 212
CJC 221

SUMMER SEMESTER IV

CJC 141
CJC 222

Drafting and Design Technology

Drafting and Design is a concentration under the curriculum title of Mechanical Engineering Technology. This curriculum prepares graduates to draft and/or design machine parts, mechanisms, and mechanical systems. Computer-aided drafting (CAD) will be emphasized as the primary method of producing drawings/documentation.

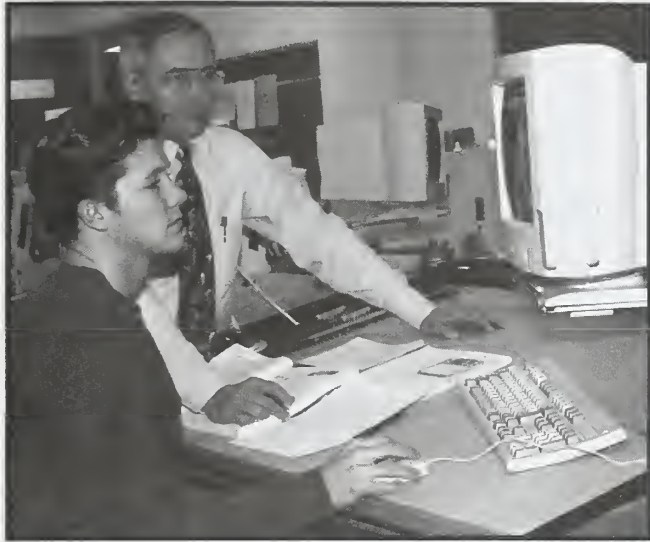
Course work includes manual and computer-aided drafting equipment, materials, statics, manufacturing methods and processes, mathematics, physics, and written and oral communications. Students should acquire skills such as thinking and planning with the emphasis on drafting and design skills.

Graduates of this curriculum will qualify to work in many fields of drafting. Drafting and design technicians are employed in manufacturing, research and development, engineering and service firms, government agencies, and related specialties.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 115	Oral Communications	3
Humanities/Fine Arts Elective		3
MAT 121	Algebra/Trigonometry I	3
SOC 210	Introduction to Sociology	3



Early Childhood Associate

The Early Childhood Associate curriculum prepares individuals to work with children from infancy through middle childhood in diverse learning environments. Students will combine learned theories with practice in actual settings with young children under the supervision of qualified teachers.

Course work includes child growth and development; physical/nutritional needs of children; care and guidance of children; and communication skills with parents and children. Students will foster the cognitive/language, physical/motor, social/emotional and creative development of young children.

Graduates are prepared to plan and implement developmentally appropriate programs in early childhood settings. Employment opportunities include child development and child care programs, preschools, public and private schools, recreational centers, Head Start Programs, and school age programs.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 114	Professional Research. & Reporting	3
PSY 150	Introduction to Psychology	3
MAT 115	Mathematical Models	3
	Humanities/Fine Arts Elective	3

II. Major Courses

COE 111	Co-Op Work Experience	1
EDU 131	Children, Family & Community	3
EDU 146	Child Guidance	3
EDU 221	Children with Special Needs	3
EDU 111	Early Childhood Credential I	2
EDU 112	Early Childhood Credential II	2
PSY 244	Child Development I	3
PSY 245	Child Development II	3
EDU 113	Family Credential	2
COE 115	Work Seminar I	1
EDU 151	Creative Activities	3
EDU 151A	Creative Activities Lab	1
EDU 153	Health, Safety, Nutrition	3
EDU 188	Issues in Early Childhood	3
EDU 185	Cognitive/Language Activities	3
EDU 185A	Cognitive/Language Lab	1
EDU 234	Infant, Toddler & Twos	3
EDU 251	Exploration Activities	3
EDU 251A	Exploration Activities Lab	1
EDU 259	Early Childhood Curriculum Planning	3
EDU 261	Early Childhood Administration	3
SOC 210	Introduction to Sociology	3
CIS 111	PC Literacy	2
SOC 213	Sociology of the Family	3

TOTAL CREDITS 71

II. Major Courses

DFT 111	Technical Drafting I	4
DFT 151	CAD I	3
MAT 122	Algebra/Trigonometry II	3
MEC 250	Statics and Strength	5
PHY 131	Physics - Mechanical	4
DDF 211	Design Drafting I	4
DDF 212	Design Drafting II	4
DDF 213	Design Drafting III	4
DDF 214	Tool Design	4
DFT 112	Technical Drafting II	4
DFT 152	CAD II	3
DFT 221	Electrical Drafting	4
HYD 110	Hydraulics/Pneumatics	3
MEC 110	Introduction to CAD/CAM	2
MEC 111	Machine Processes I	3
MEC 145	Manufacturing Materials and Processes	3
PHY 132	Physics-Elect. & Mag.	4

TOTAL CREDITS 76

FALL SEMESTER I

DFT 111
DFT 151
ENG 111
MAT 121
MEC 145

FALL SEMESTER II

DDF 212
DFT 221
Elective
PHY 132
SOC 210

SPRING SEMESTER I

DFT 112
DFT 152
ENG 115
MAT 122
MEC 111

SPRING SEMESTER II

DDF 213
DDF 214
HYD 110
MEC 250

SUMMER SEMESTER I

DDF 211
PHY 131
MEC 110

FALL SEMESTER I

ENG 111
MAT 115
PSY 150
EDU 111
EDU 151
EDU 151A

SPRING SEMESTER I

EDU 112 or EDU 113
PSY 244
EDU 131
EDU 153
SOC 210
EDU 221

SUMMER SEMESTER I

ENG 114
CIS 111
EDU 146
EDU 188

PLEASE NOTE: The Spring Semester II is lighter than the other semester due to co-op work experience in which the student spends a minimum of 10 hours per week in a local learning center environment, preferably in the morning during instructional time.

Electrical/Electronics Technology

The Electrical/Electronics Technology curriculum is designed to provide training for persons interested in the installation and maintenance of electrical/electronic systems found in residential, commercial and industrial facilities.

Training, most of which is hands-on, will include such topics as AC/DC theory, basic wiring practices, digital electronics, programmable logic controllers, industrial motor controls, the National Electric Code, and other subjects as local needs require.

Graduates should qualify for a variety of jobs in the electrical/electronics field as an on-the-job trainee or apprentice, assisting in the layout, installation, and maintenance of electrical/electronic systems.

Semester Hour Credits

I. General Education Courses

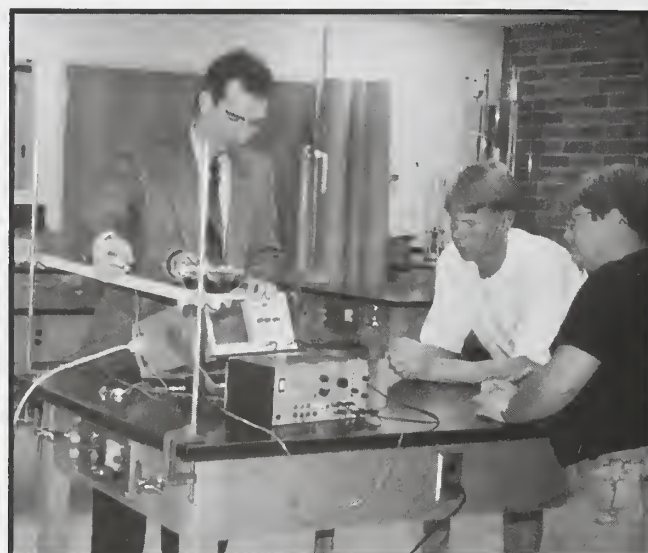
Humanities/Fine Arts Elective 3
Social/Behavioral Science Elective 3
ENG 111 Expository Writing 3
ENG 114 Professional Research & Reporting 3
MAT 121 Algebra/Trigonometry I 3

FALL SEMESTER II

EDU 234
PSY 245
EDU 185
EDU185 A
EDU 259
Fine Arts Elective

SPRING SEMESTER II

COE 111
COE 115
EDU 261
EDU 251
EDU 251A
SOC 213



II. Major Courses

ELC 112	DC/AC Electricity	5
ELC 113	Basic Wiring I	4
ELC 117	Motors and Controls	4
ELC 128	Introduction to PLC	3
ELN 133	Digital Electronics	4
ELC 114	Basic Wiring II	4
ELC 115	Industrial Wiring	4
ELC 118	National Electrical Code	2
ELC 125	Diagrams & Schematics	2
ELC 119	NEC Calculations	2
BPR 130	Blueprint Reading/Construction	2
CIS 111	Basic PC Literacy	2
ELC 229	Applications Project	2
HYD 110	Hydraulics/Pneumatics I	3
ELC 228	PLC Applications	4
ELN 131	Electronic Devices	4
ELN 229	Industrial Electronics	4

Total Credits 70

FALL SEMESTER I

ELC 113
ELC 112
CIS 111
MAT 121
BPR 130

FALL SEMESTER II

ELN 131
ENG 114
Humanities/Fine Arts Elect
ELN 133
HYD 110

SPRING SEMESTER I

ENG 111
ELC 114
ELC 118
ELC 117
ELC 125

SPRING SEMESTER II

Social/Behav Science Elect
ELN 229
ELC 229
ELC 228

SUMMER SEMESTER I

ELC 119
ELC 128
ELC 115

Electronics Engineering Technology

The Electronics Engineering Technology curriculum prepares individuals to become technicians who design, build, install, test, troubleshoot, repair, and modify developmental and production electronic components, equipment, and systems such as industrial/computer controls, manufacturing systems, communication systems, and power electronic systems.

A broad-based core of courses, including basic electricity, solid-state fundamentals, digital concepts, and microprocessors, ensures the student will develop the skills necessary to perform entry-level tasks. Emphasis is placed on developing the student's ability to analyze and troubleshoot electronic systems.

Graduates should qualify for employment as engineering assistants or electronic technicians with job titles such as electronics engineering technician, field service technician, maintenance technician, electronic tester, electronic systems integrator, bench technician, and production control technician.

Semester Hour Credits

I. General Education Courses

MAT 121	Algebra/Trigonometry I	3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Elective - Humanities/Fine Arts		3
Elective - Social/Behavioral Science		3

II. Major Courses

ELC 131	DC/AC Circuit Analysis	5
PHY 131	Physics- Mechanics	4
MAT 122	Algebra/Trigonometry II	3
ELN 131	Electronic Devices	4
ELN 132	Linear IC Applications	4
ELN 133	Digital Electronics	4
ELN 232	Intro to Microprocessors	4
EGR 131	Intro to Electronics Technology	2
ELC 135	Electrical Machines I	3
CSC 133	C Language Programming	3
CET 111	Computer Upgrade and Repair	3
ELN 236	Fiber Optics and Lasers	4
ELN 234	Communication Systems	4
ELN 237	Local Area Networks	3
ELN 235	Data Communication Systems	4
CIS 111	Basic PC Literacy	2
CET 212	Integrated Manufacturing Systems	2

Select 3 SHC from the following courses:

CET 211	Computer Upgrade & Repair II	3
COE 111	Co-Op Work Experience 1	1
COE 121	Co-Op Work Experience 2	1
COE 131	Co-Op Work Experience 3	1

Total Credits 76

FALL SEMESTER I

ELC 131
MAT 121
ENG 111
EGR 131
PHY 131
CIS 111

SPRING SEMESTER I

ELC 135
MAT 122
ELN 131
ENG 114
CSC 133

SUMMER SEMESTER I

ELN 132
ELN 133

FALL SEMESTER II

ELN 232
ELN 237
ELN 234
Humanities Elective

SPRING SEMESTER II

ELN 236
ELN 235
CET 211 or Co-op
CET 212
Sociology Elective

Hotel/Restaurant Management

The Hotel and Restaurant Management curriculum prepares students to understand and apply the administrative and practical skills needed for supervisory and managerial positions in hotels, motels, resorts, inns, restaurants, institutions, and clubs.

Course work includes front office management, food preparation, guest services, sanitation, menu writing, quality management, purchasing, and other areas critical to the success of hospitality professionals.

Upon completion, graduates should qualify for supervisory or entry-level management positions in food and lodging including, front office, reservations, housekeeping, purchasing, dining room, and marketing. Opportunities are also available in the support areas of food and equipment sales.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Humanities/Fine Arts Elective		3
Social/Behavioral Science Elective		3
MAT 115	Mathematical Models	3

II. Major Courses

HRM 110	Introduction to Hospitality	2
HRM 140	Hospitality/Tourism Law	3
HRM 220	Food and Beverage Control	3
HRM 280	Hospitality Management Problems	3
HRM 240	Hospitality Marketing	3
CUL 110	Sanitation and Safety	2
ACC 175	Hotel and Restaurant Accounting	4
COE 111	Co-op Work Experience	1
COE 121	Co-op Work Experience	1

CAPE FEAR COMMUNITY COLLEGE

CUL 110A	Sanitation and Safety Lab	1
CUL 120	Purchasing	2
CUL 120A	Purchasing Lab	1
CUL 125	Hospitality Information Systems	2
CUL 135	Food and Beverage Service	3
CUL 135A	Food and Beverage Service Lab	1
HRM 210	Meetings and Conventions	3
HRM 215	Restaurant Management	3
HRM 215A	Restaurant Management Lab	1
HRM 220A	Food and Beverage Control Lab	1
HRM 245	Hospitality Human Resource Management ...	3

Students must take at least 6 SHC from among the following:

BUS 280	R.E.A.L. Small Business	4
CUL 140	Food Preparation I	6
CUL 214	Wine Appreciation	2
CUL 220	Food Service for Special Operations	5
CUL 240	Food Preparation II	5
HRM 115	Housekeeping	3
HRM 115A	Housekeeping Lab	1
HRM 120	Front Office Procedures	3
HRM 120A	Front Office Procedures Lab	1
HRM 125	Hospitality Etiquette	1
HRM 135	Facilities Management	2
HRM 145	Hospitality Supervision	3
HRM 150	Hospitality Training	3
HRM 230	Club and Resort Management	2
NUT 110	Nutrition	3

Total Credits **67/68**

FALL SEMESTER I

ENG 111
Social/Behav Science Elect
HRM 110
HRM 140
CUL 110
CUL 110A
CUL 125

SPRING SEMESTER I

ENG 114
MAT 115
HRM 245
CUL 135
CUL 135A
CUL 140 or HRM 120
and HRM 120A

FALL SEMESTER II

Humanities/Fine Arts Elect
ACC 175
CUL 120
CUL 120A
COE 111
HRM 220
HRM 220A
HRM 240

SPRING SEMESTER II

HRM 280
HRM 215
HRM 215A
HRM 210
HRM Approved Elective
HRM Approved Elective
(HRM Approv. Elect. Lab)
COE 121

Students must take at least 6 SHC from among the following:

BUS 280	HRM 115	HRM 135
CUL 140	HRM 115A	HRM 145
CUL 214	HRM 120	HRM 150
CUL 220	HRM 120A	HRM 230
CUL 240	HRM 125	NUT 110

Instrumentation

Instrumentation is a concentration under the curriculum title of Electronics Engineering Technology. This curriculum prepares individuals for positions in the process control field. This curriculum develops the knowledge of measuring and controlling devices and the technical skills involved in the application of instrument control to processes, systems, and operations.

Course work includes training in production control, and process variables such as temperature, pressure, flow, level, humidity, density, and viscosity. Students will gain fundamental knowledge of mechanics, electronics, pneumatics, programmable logic controllers, and the manufacturing processes.

Graduates of the curriculum are employed as instrumentation technicians which install, calibrate, and maintain sensing, telemetering, and recording instrumentation and circuitry. Other duties may include devising, setting up, and operating instrumentation equipment involved in testing mechanical, structural, or electrical equipment.

Basic computer skills are necessary for the successful completion of this curriculum. Students entering this program should have basic computer skills.

Semester Hour Credits

I. General Education Courses

MAT 121	Algebra/Trig I	3
ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Elective - Humanities/Fine Arts	3
Elective - Social/Behavioral Science	3

II. Major Courses

ELC 131	DC/AC Circuit Analysis	5
ELN 131	Electronic Devices	4
ELN 132	Linear IC Applications	4
MAT 122	Algebra/Trig II	3
PHY 131	Physics -Mechanics	4
ELN 133	Digital Electronics	4
ELN 232	Introduction to Microprocessors	4
PCI 161	Introduction to Instrumentation	1
PCI 261	Process Measurement	3
PCI 262	Introduction to Process Control	4
PCI 263	Advanced Process Control	4
ELC 128	Introduction to PLC	3
PCI 162	Intrumentation Controls	3
PCI 264	Process Control with PLC's	4
ELN 231	Industrial Controls	3
EGR 131	Introduction to Engineering Tech	2
CSC 133	C Programming	4

Select 2 SHC from the following courses:

ELN 275	Troubleshooting	2
COE 111	Co-Op Work Experience 1	1
COE 121	Co-Op Work Experience 2	1

Total Hours **76**

FALL SEMESTER I

ELC 131
MAT 121
ENG 111
EGR 131

SPRING SEMESTER I

ELN 131
ELC 128
MAT 122
CIS 133
PHY 131

SUMMER SEMESTER I

ELN 132
ELN 133
ENG 114
PCI 161

FALL SEMESTER II

PCI 162
PCI 261
PCI 262
ELN 232
HUM 110

SPRING SEMESTER II

PCI 263
PCI 264
ELN 231
ELN 275
PSY 135

Interior Design

The Interior Design curriculum is designed to prepare students for a variety of job opportunities in the field of both residential and non-residential interior design. The focus of the studies is technical knowledge, professional practices, and aesthetic principles.

Curriculum content includes residential and non-residential interior design, architectural drafting, computer aided design, and universal design. Also included are basic design, history of interiors and furnishings, color theory, products, business practices, graphic presentations, and general education courses.

Graduates should qualify for a variety of jobs including residential and commercial interior design, set design, showroom design, and sales positions for furniture, textiles and accessories, and all business dealing with interiors.

Semester Hour Credits

I. General Education Course

ENG 111 Expository Writing 3
ENG 114 Professional Research & Reporting 3
Behavioral/Social Science Elective 3
Humanities/Fine Arts Elective 3
MAT 115 Mathematical Models 3

II. Major Courses

DES 125 Graphic Presentation I 2
DES 135 Principles and Elem. of Design I 4
DES 210 Business Practices/Interior Design 2
DES 220 Introduction to Interior Design 3
DES 225 Textiles/Fabrics 3
DES 230 Residential Design I 3
DES 235 Products 3
DES 240 Non-Residential Design I 3
DES 110 Architectural Graphics 2



DES 120 CAD for Interior Design 2
DES 255 History of Interiors and Furnishings I 3
DES 111 Creative Problem Solving 2
DES 136 Principles and Elem. of Design I 4
DES 231 Residential Design II 3
DES 241 Non-Residential Design II 3
DES 285 Capstone/Interior Design 4

Students must take at least 3 SHC from among the following:

CIS 111 Basic PC Literacy 2
COE 111 Co-op Work Experience I 1
COE 121 Co-op Work Experience II 1
COE 131 Co-op Work Experience III 1
DES 245 Sales and Marketing for Interior Design 2
DES 280 Codes & Standards for Interior Design 3

Total Credits 64

FALL SEMESTER I

DES 110
DES 111
DES 125
ENG 111
MAT 115
Humanities/Fine Arts Elect

FALL SEMESTER II

DES 136
DES 230
DES 235
DES 240
DES 255

SPRING SEMESTER I

DES 120
DES 135
DES 220
DES 225
ENG 114
Behavioral/Soc. Science Elective

SPRING SEMESTER II

DES 210
DES 231
DES 241
DES 285

Students must also take at least 3 SHC from:

CIS 111 COE 131
COE 111 DES 245
COE 121 DES 280

Machining Technology

The Machining Technology curriculum is designed to develop skills in the theory and safe use of hand tools, power machinery, computerized equipment and sophisticated precision inspection instruments.

Students will learn to interpret blueprints, set up manual and CNC machines, perform basic and advanced machining operations and make decisions to insure that work quality is maintained.

Employment opportunities for machining technicians exist in manufacturing industries, public institutions, governmental agencies and in a wide range of specialty machining shops.

Semester Hour Credits

I. General Education Courses

MAT 120	Geometry and Trigonometry	3
PSY 118	Interpersonal Psychology	3
HUM 110	Technology and Society	3
ENG 111	Expository Writing	3
ENG 115	Oral Communications	3

II. Major Courses

MAC 111	Machining Technology	6
MAC 112	Machining Technology II	6
MAC 113	Machining Technology III	6
MAC 131	Blueprint Reading: MACH I	2
MAC 132	Blueprint Reading: MACH II	2
MAC 214	Machining Technology IV	6
MAC 224	Advanced CNC Milling	2
MEC 231	Computer Aided Manufacturing I	3
MEC 232	Computer Aided Manufacturing II	3
CIS 111	Basic PC Literacy	2
MAC 122	CNC Turning	2
MAC 124	CNC Milling	2
MAC 222	Advanced CNC Turning	2
MAC 241	Jigs and Fixtures I	4
MAC 242	Jigs and Fixtures II	4
MEC 172	Introduction to Metallurgy	3
MAC 152	Advanced Machining Calculations	2
MAC 153	Compound Angles	2

Total Hrs. 74

FALL SEMESTER I

MAC 131
MAC 111
MAC 124
HUM 110
CIS 111

FALL SEMESTER II

MAC 113
MAC 222
PSY 118
MAC 241

SPRING SEMESTER I

MAC 132
MAC 112
MAC 122
MAT 120
ENG 111

SPRING SEMESTER II

MAC 214
MAC 242
ENG 115
MEC 232

SUMMER SEMESTER I

MEC 231
MAC 224
MEC 172
MAC 152

Marine Technology

This curriculum is designed to provide the practical and academic skills essential for success in marine scientific support. Students will receive training in observational and measurement techniques aboard a variety of vessels including the College's own ocean-going research vessel.

Course work includes a unique blend of traditional and contemporary vocational, technical and scientific marine education. Students are trained in the use of physical, chemical, meteorological, biological, and geological oceanographic instrumentation and sampling equipment.

Graduates should qualify for entry level field or laboratory positions with industries, state and federal agencies, and educational facilities associated with marine science and research. Career opportunities include oceanography, environmental science, marine biology, geophysical exploration, and fisheries-related employment.

Semester Hour Credits

I. General Education Courses

Humanities / Fine Arts Elective	3
Social/ Behavioral Science Elective	3
ENG 111 Expository Writing	3
ENG 114 Professional Research and Reporting	3
MAT 121 Algebra/ Trigonometry I	3

II. Major Courses

CIS 111	Basic PC Literacy	2
ELN 114	Marine Electronics	2
MSC 110	Training Cruise I	1
MSC 112	Training Cruise II	1
MSC 114	Training Cruise III	1
MSC 122	Boat Handling/ Seamanship	3
MSC 124	Industrial Skills	3
MSC 126	Marine Engines	2
MSC 132	Fishing Gear Technology I	3
MSC 134	Fishing Gear Technology II	2
MSC 150	Navigation	3
MSC 152	Marine Instrumentation	2
MSC 162	Oceanography I	3
MSC 164	Oceanography II	2
MSC 172	Marine Biology	3
MSC 174	Marine Invertebrate Zoology	4
MSC 182	Water Analysis I	2
MSC 216	Training Cruise IV	1
MSC 218	Training Cruise V	1
MSC 254	Marine Data Processing	2

MSC 256	Cartography/ Hydrographic Surveying	2
MSC 276	Marine Vertebrate Zoology	4
MSC 284	Water Analysis II	2
HEA 112	First Aid & CPR	2
MSC 154	Marine Photography	3
MSC 258	Multimedia Presentations	1

Total Credit 72

FALL SEMESTER I

HEA 112	Humanities/ Fine Arts Elect
MAT 121	Social/ Behav Science Elect
MSC 110	CIS 111
MSC 122	MSC 216
MSC 132	MSC 258
MSC 162	MSC 276
MSC 172	

SPRING SEMESTER I

ENG 111	ENG 114
MSC 112	MSC 218
MSC 124	MSC 254
MSC 150	MSC 256
MSC 154	MSC 284
MSC 174	

SUMMER SEMESTER I

MSC 114
MSC 126
MSC 134
MSC 152
MSC 164
MSC 182

Mechanical Engineering Technology

The Mechanical Engineering Technology curriculum prepares graduates for employment as mechanical technicians. Typical assignments would include assisting in the design, development, testing and repair of mechanical equipment. Emphasis is placed on the integration of theory and mechanical principles.

Course work includes applied mechanics, manufacturing methods and processes, computer usage, computer-aided drafting, mathematics, physics, and oral and written communications. The courses will stress critical thinking, planning, and problem solving.

Graduates of the curriculum will find employment opportunities in the diversified branches of the mechanical field. Mechanical engineering technicians are employed in many types of manufacturing, fabrication, research and development, and service industries.

Semester Hour Credits

I. General Education Course

Humanities/Fine Arts Elective	3
ENG 111 Expository Writing	3
ENG 115 Oral Communication	3
MAT 121 Algebra/Trigonometry I	3
SOC 210 Introduction to Sociology	3

II. Major Courses

DFT 111 Technical Drafting I	4
DFT 151 CAD I	3
MAT 122 Algebra/Trigonometry II	3
MEC 250 Statics and Strength	5
PHY 131 Physics/Mechanics	4
ATR 112 Introduction to Automation	3
CIS 111 Basic PC Literacy	2
CIS 133 "C" Programming	3
DFT 152 CAD II	3
DFT 211 Gears, Cams, & Pulleys	2
EGR 285 Design Project	2
ELC 112 DC/AC Electricity	5
HYD 110 Hydraulics/Pneumatics	3
ISC 112 Industrial Safety	2
ISC 226 Facilities Design	4
MEC 110 Introduction to CAD/CAM	3
MEC 145 Manufacturing Materials and Processes	3
MEC 161 Manufacturing Processes I	3
MEC 161A Manufacturing Processes I Lab	1
MEC 172 Introduction to Metallurgy	3

Total Credits 75

FALL SEMESTER I

DFT 111
CIS 111
ENG 111
MAT 121
ISC 112

FALL SEMESTER II

DFT 211
ELC 112
HYD 110
MEC 110
MEC 250

SPRING SEMESTER I

DFT 151
MEC 145
ENG 115
MAT 122
MEC 161
MEC 161A

SPRING SEMESTER II

CIS 133
Humanities/Fine Arts Elect
ISC 226
SOC 210

SUMMER SEMESTER I

ATR 112
PHY 131
DFT 152
MEC 172

Office Systems Technology

The Office Systems Technology curriculum prepares individuals for positions in administrative support careers. It equips office professionals to respond to the demands of a dynamic computerized workplace.

Students will complete courses designed to develop proficiency in the use of integrated software, oral and written communication, analysis and coordination of office duties and systems, and other support topics. Emphasis is placed on non-technical as well as technical skills.

Graduates should qualify for employment in a variety of positions in business, government, and industry. Job classifications range from entry-level to supervisor to middle management.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
Humanities/Fine Arts Elective	3	
Social/Behavioral Science Elective	3	
MAT 115	Mathematical Models	3

II. Major Courses

OST 134	Text Entry and Formatting	4
OST 136	Word Processing	2
OST 164	Text Editing Applications	3
OST 289	Office Systems Management	3
CIS 111	Basic PC Literacy	2
ACC 120	Principles of Accounting I	4
BUS 121	Business Math	3
BUS 270	Professional Development	3
CIS 120	Spreadsheet I	3
CIS 152	Database Concepts and Applications	3
ECO 151	Survey of Economics	3
NET 115	Telecom Fundamentals	3
OST 131	Keyboarding	2
OST 184	Records Management	2
OST 223	Machine Transcription I	2
OST 233	Office Publications Design	3
OST 236	Advanced Word/Information Processing	3

Students must take at least 3 SHC from among the following:

BUS 137	Principles of Management	3
BUS 240	Business Ethics	3
BUS 280	R.E.A.L. Small Business	4
COE 111	Co-op Work Experience I	1
COE 121	Co-op Work Experience II	1
COE 131	Co-op Work Experience III	1

Total Credits 66



FALL SEMESTER I

BUS 121
CIS 111
ENG 111
OST 131
BUS 270

FALL SEMESTER II

ACC 120
CIS 152
ECO 151
OST 223
OST 236
Behav/Social Science Elect.

SPRING SEMESTER I

ENG 114
OST 134
OST 136
OST 164
MAT 115
Humanities/Fine Arts Elect

SPRING SEMESTER II

Business Elective
CIS 120
NET 115
OST 184
OST 233
OST 289

Students must take 3 SHC Business Elective from among the following:

BUS 137	COE 111
BUS 240	COE 121
BUS 280	COE 131

Paralegal Technology

The Paralegal Technology curriculum prepares individuals to work under the supervision of attorneys by performing routine legal tasks, and assisting with substantive legal work. A paralegal/legal assistant may not practice law, give legal advice, or represent clients in a court of law.

Course work includes substantive and procedural legal knowledge in the areas of civil litigation, legal research and writing, real estate, family law, wills, estates, trusts, and commercial law. Required courses also include subjects such as English, mathematics, and computer utilization.

Graduates are trained to assist attorneys in probate work, investigations, public records search, drafting and filing legal documents, research, and office management. Employment opportunities are available in private law firms, governmental agencies, banks, insurance agencies, and other business organizations.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
POL 130	State and Local Government	3
MAT 115	Mathematics Models	3
COM 231	Public Speaking	3
	Humanities/Fine Art Elective	3

II. Major Courses

LEX 110	Introduction to Paralegal Study	2
LEX 120	Legal Research/Writing I	3
LEX 130	Civil Injuries	2
LEX 140	Civil Litigation I	3
LEX 150	Commercial Law	3
LEX 210	Real Property I	2
LEX 240	Family Law	2
LEX 250	Wills Estates & Trust	3
LEX 121	Legal Research/Writing II	3
LEX 160	Criminal Law and Procedure	3
LEX 170	Administrative Law	2
LEX 211	Property II	3
LEX 260	Bankruptcy & Collections	2
LEX 270	Law Office Management & Tech.	2
LEX 220	Corporation Law	2
LEX 280	Ethic & Professionalism	2
CJC 231	Constitutional Law	3
CIS 111	Basic PC Literacy	2
ACC 120	Principal of Accounting I	4
OST 136	Word Processing	2
ACC 131	Federal Income Tax	3

Total Credits 68

PARALEGAL TECHNOLOGY (DAY)

FALL SEMESTER I		FALL SEMESTER II
ENG 111		LEX 240
LEX 110		LEX 210
LEX 150		LEX 260
LEX 130		Humanities/Fine Arts Elect
CIS 111		LEX 270
MAT 115		COM 231

SPRING SEMESTER I		SPRING SEMESTER II
LEX 120		LEX 211
LEX 140		LEX 280
LEX 160		LEX 250
POL 130		ACC 131
ACC 120		
LEX 220		

SUMMER SEMESTER I

LEX 121	OST 136
LEX 170	CJC 231

PARALEGAL TECHNOLOGY (NIGHT)

FALL SEMESTER I	FALL SEMESTER III
ENG 111	LEX 121
LEX 110	LEX 170

SPRING SEMESTER I	SPRING SEMESTER III
LEX 150	OST 136
LEX 130	CJC 231

SUMMER SEMESTER I	SUMMER SEMESTER III
CIS 111	LEX 240
MAT 115	LEX 210
	LEX 260

FALL SEMESTER II

LEX 120
LEX 140

FALL SEMESTER IV

Humanities/Fine Arts Elect
LEX 270

SPRING SEMESTER II

LEX 160
POL 130

SPRING SEMESTER IV

COM 231
LEX 211

SUMMER SEMESTER II

ACC 120
LEX 220

SUMMER SEMESTER IV

LEX 280
LEX 250
ACC 131

Radiography

The Radiography curriculum prepares the graduate to be a radiographer, a skilled health care professional who uses radiation to produce images of the human body.

Course work includes clinical rotations to area health care facilities, radiographic exposure, image processing, radiographic procedures, physics, pathology, patient care and management, radiation protection, quality assurance, anatomy and physiology, and radiobiology.

Graduates of accredited programs are eligible to apply to take the American Registry of Radiologic Technologists' national examination for certification and registration as medical radiographers. Graduates may be employed in hospitals, clinics, physicians' offices, medical laboratories, government agencies, and industry.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3
PSY 150	General Psychology	3
BIO 168	Anatomy & Physiology I	4
BIO 169	Anatomy & Physiology II	4
	Humanities Elective	3

II. Major Courses

RAD 110	Rad Intro & Patient Care	3
RAD 111	Rad Procedures I	4



RAD 112	Rad Procedures II	4
RAD 121	Radiographic Imaging I	3
RAD 122	Radiographic Imaging II	2
RAD 131	Radiographic Physics I	2
RAD 151	RAD Clinical Ed I	2
RAD 161	RAD Clinical Ed II	5
RAD 171	RAD Clinical Ed III	4
RAD 211	Rad Procedures III	3
RAD 231	Radiographic Physics II	2
RAD 241	Radiation Protection	2
RAD 245	Radiographic Analysis	3
RAD 251	RAD Clinical Ed IV	7
RAD 261	RAD Clinical Ed V	7
CIS 111	Basic PC Literacy	2

Total Credits 75

FALL SEMESTER I

BIO 168
ENG 111
RAD 110
RAD 111
RAD 151

FALL SEMESTER II

ENG 114
RAD 211
RAD 231
RAD 241
RAD 251

SPRING SEMESTER I

BIO 169
RAD 112
RAD 121
RAD 161

SPRING SEMESTER II

PSY 150
Humanities Elective
RAD 245
RAD 261

SUMMER SEMESTER I

CIS 111
RAD 122
RAD 131
RAD 171

DIPLOMA PROGRAMS

Air Conditioning, Heating, and Refrigeration Technology

The Air Conditioning, Heating, and Refrigeration Technology curriculum provides the basic knowledge to develop skills necessary to work with residential and light commercial systems.

Topics include mechanical refrigeration, heating and cooling theory, electricity, controls, and safety. The diploma program covers air conditioning, furnaces, heat pumps, tools and instruments.

Diploma graduates should be able to assist in the start-up, preventive maintenance, service, repair, and/or installation of residential and light commercial systems.

Semester Hour Credits

I. General Education Courses

ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3

II. Major Courses

AHR 110	Introduction to Refrigeration	5
AHR 112	Heating Technology	4
AHR 113	Comfort Cooling	4
AHR 114	Heat Pump Technology	4
ELC 111	Introduction to Electricity	3
AHR 115	Refrigeration Systems	2
AHR 130	HVAC Controls	3
AHR 133	HVAC Servicing	4
AHR 140	All-Weather Systems	2
AHR 151	HVAC Duct Systems I	2
AHR 160	Refrigerant Certification	1
AHR 211	Residential System Design	3

III. Other Required Courses

BUS 230	Small Business Management	3
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Total Credits 46

FALL SEMESTER I

AHR 110
ELC 111
AHR 112
AHR 151
MAT 101

SUMMER SEMESTER I

AHR 114
AHR 140
AHR 211
BUS 230

SPRING SEMESTER I

AHR 113
AHR 115
AHR 130
AHR 133
AHR 160
ENG 101

Autobody Repair

The Autobody Repair curriculum provides training in the use of equipment and materials of the autobody repair trade. The student studies the construction of the automobile body and techniques of autobody repairing, rebuilding, and refinishing.

The course work includes autobody fundamentals, industry overview, and safety. Students will perform hands-on repairs in the areas of non-structural and structural repairs, mig welding, plastics and adhesives, refinishing, and other related areas.

Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive body and refinishing industry. Graduates may find employment with franchised independent garages, or they may become self-employed.

Semester Hour Credits

I. General Education Courses

ENG 101 Applied Communications 3
MAT 101 Applied Mathematics 3

II. Major Courses

AUB 111 Painting and Refinishing I 4
AUB 112 Painting and Refinishing II 4
AUB 114 Special Finishes 2
AUB 121 Non-Structural Damage I 3
AUB 122 Non-Structural Damage II 4
AUB 131 Structural Damage I 4
AUB 132 Structural Damage II 4
AUB 134 Auto Body MIG Welding 3
AUB 136 Plastics and Adhesives 3
AUB 150 Automotive Detailing 2
AUB 160 Body Shop Operations 2
AUB 162 Autobody Estimating 2
AUT 171 Heating & Air Conditioning 3
CIS 111 Basic PC Literacy 2

Total Credits: 47

FALL SEMESTER I

AUB 111
AUB 121
AUB 131
AUB 134
CIS 111
MAT 101

SUMMER SEMESTER I

AUB 114
AUB 150
AUB 160
AUB 162
AUT 171

SPRING SEMESTER I

AUB 112
AUB 122
AUB 132
AUB 136
ENG 101

Boat Building

The Boat Building program prepares individuals for employment in the boat manufacturing and repair industry. Today's boat builders are skilled craftspeople who can create complex shapes out of a wide variety of materials.

Course work includes reading marine blueprints, lofting, constructing bird cages, building forms, and the safe and proper use of hand and power tools. Wood and composite boat building, production moldmaking, and interior cabinetry and joinery are also covered.

Graduates may find employment with yacht manufacturer's or with other companies needing wood furniture or moldings fabricated and installed. Other employment opportunities can be found in the fiberglass industry and in boat maintenance and repair yards.

Semester Hour Credits

I. General Education Courses

ENG 101 Applied Communications I 3
MAT 101 Applied Mathematics I 3

II. Major Courses

BTB 101 Boat Building I 10
BTB 102 Boat Building II 9
BTB 103 Yacht Joiner Practices I 4
BTB 104 Yacht Joiner Practices II 3
BTB 105 Yacht Repair/Renovation 5
FBG 100 Fiberglass Mold Making 5
DFT 100 Marine Drafting 2

Total Credits 44

FALL SEMESTER I

BTB 101
DFT 100
MAT 101

SUMMER SEMESTER I

BTB 104
BTB 105
FBG 100

SPRING SEMESTER I

BTB 102
BTB 103

ENG 101

Carpentry

The Carpentry curriculum is designed to train students to construct residential structures using standard building materials and hand and power tools. Carpentry skills and a general knowledge of residential construction will also be taught.

Course work includes footings and foundations, framing, interior and exterior trim, cabinetry, blueprint reading, residential planning and estimating, and other related topics. Students will develop skills through hands-on participation.

Graduates should qualify for employment in the residential building construction field as rough carpenters, framing carpenters, roofers, maintenance carpenters, and other related job titles.

Semester Hour Credits

I. General Education Courses

ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3

II. Major Courses

CAR 111	Carpentry I	9
CAR 112	Carpentry II	9
CAR 113	Carpentry III	6
BPR 130	Blueprint Reading/Construction	2
CAR 115	Residential Planning/Estimating	3
CAR 114	Residential Building Codes	3

Total Credits 38

FALL SEMESTER I

CAR 111
BPR 130
MAT 101

SUMMER SEMESTER I

CAR 113
CAR 114

SPRING SEMESTER I

CAR 112
CAR 115
ENG 101

Dental Assisting

The Dental Assisting curriculum prepares individuals to assist the dentist in the delivery of dental treatment and to function as integral members of the dental team while performing chairside and related office and laboratory procedures.

Course work includes instruction in general studies, biomedical sciences, dental sciences, clinical sciences, and clinical practice. A combination of lecture, laboratory, and clinical experiences provide students with knowledge in infection/hazard control, radiography, dental materials, preventive dentistry, and clinical procedures.

Graduates may be eligible to take the Dental Assisting Na-



tional Board Examination to become Certified Dental Assistants. As a Dental Assistant II, defined by the Dental Laws of North Carolina, graduates work in dental offices and other related areas.

Semester Hour Credits

I. General Education Courses

ENG 102	Applied Communications II	3
PSY 118	Interpersonal Psychology	3

II. Major Courses

DEN 101	Preclinical Procedures I	7
DEN 102	Dental Materials	5
DEN 103	Dental Sciences	2
DEN 104	Dental Health Education	3
DEN 105	Practice Management	2
DEN 106	Clinical Practice I	5
DEN 107	Clinical Practice II	5
DEN 111	Infection/Hazard Control	2
DEN 112	Dental Radiology	3
DEN 110	Orofacial Anatomy	3
BIO 106	Anatomy/Physiology/Microbiology	3

III. Other Required Courses

CIS 111	Basic PC Literacy	2
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TOTAL CREDITS 48

FALL SEMESTER I

BIO 106
DEN 110
DEN 111
DEN 101
DEN 102

SUMMER SEMESTER I

CIS 111
ENG 102
DEN 107

SPRING SEMESTER I

DEN 112
DEN 103
DEN 104
DEN 105
DEN 106

Industrial Maintenance Technology

The Industrial Maintenance Technology curriculum is designed to prepare or upgrade individuals to service, maintain, repair, or install equipment for a wide range of industries. Instruction includes theory and skill training needed for inspecting, testing, troubleshooting, and diagnosing industrial equipment and physical facilities.

Students will learn technical skills in blueprint reading, electricity, hydraulics/pneumatics, machining, welding, and various maintenance procedures. Practical application in these industrial systems will be emphasized and additional advanced course work may be offered.

Upon completion of any of the various levels of this curriculum, graduates should gain the necessary practical skills and related technical information to qualify for employment or advancement in the various areas of industrial maintenance technology.

Semester Hour Credits

I. General Education Courses

MAT 101	Applied Mathematics I	3
ENG 101	Applied Communications I	3

II. Major Courses

MNT 110	Introduction to Maintenance Procedures	2
BPR 111	Blueprint Reading	2
HYD 110	Hydraulics/Pneumatics I	3
MEC 111	Machine Processes I	3
WLD 112	Basic Welding Processes	2
ELC 111	Introduction to Electricity	3
CIS 111	Basic PC Literacy	2
PLU 211	Commercial/Industrial Plumbing	3
ISC 110	Workplace Safety	1
MEC 130	Mechanisms	3
BPR 121	Blueprint Reading: Mechanical	2
MNT 220	Rigging and Moving	2
MNT 230	Pumps and Piping Systems	2
AHR 120	HVACR Maintenance	2

Total Credits 38

FALL SEMESTER I

MEC 111
BPR 111
ISC 110
PLU 211
MNT 110
CIS 111

SUMMER SEMESTER I

BPR 121
MNT 220
MNT 230
AHR 120

SPRING SEMESTER I

ENG 101
HYD 110
ELC 111

MEC 130
MAT 101
WLD 112

Masonry

The Masonry curriculum is designed to prepare individuals to work in the construction industry as masons. Masonry courses provide principles and fundamentals of masonry and experiences necessary to produce quality construction using safe, practical, and reliable work habits.

Course work includes basic mathematics, blueprint reading, and methods used in laying out masonry jobs for residential, commercial, and industrial construction. Upon completion students will be able to read blueprints, estimate structures, construct footings and walks, and lay masonry units.

Upon completion, students will be issued a certificate or diploma. Graduates should qualify for employment in the masonry industry as apprentices or masons.

Semester Hour Credits

I. General Education Courses

ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3

II. Major Courses

BPR 130	Blueprint Reading/Construction	2
MAS 110	Masonry I	10
MAS 120	Masonry II	10
MAS 130	Masonry III	8

Total Credits: 36

FALL SEMESTER I

BPR 130
MAS 110
MAT 101

SUMMER SEMESTER I

MAS 130

SPRING SEMESTER I

ENG 101
MAS 120

Medium/Heavy Duty Vehicles Systems Technology/Marine Systems Concentration

Marine Systems is a concentration under the curriculum title of Medium/Heavy Duty Vehicles Systems Technology. This curriculum provides training for individuals interested in becoming technicians which service and maintain the propulsion systems of boats and other types of marine and industrial equipment.



The course work includes the maintenance and repair procedures of mechanical, electrical, hydraulics equipment used on marine systems. Students will inspect and test equipment to determine the cause of faulty operation, and then repair and replace defective parts.

Graduates of the curriculum should qualify as marine technicians which may be employed in marinas, shipyards, industrial and trucking industries.

Semester Hour Credits

I. General Education Courses

ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3

II. Major Courses

DIE 110	Diesel Engines	6
DIE 112	Diesel Electrical Systems	5
HYD 112	Hydraulics/Medium/Heavy Duty	2
DIE 125	Preventive Maintenance	2
DIE 121	Marine Engines	4
DIE 145	Marine Electricity	4
DIE 147	Marine Power Trains	4
CIS 111	Basic PC Literacy	2
DIE 115	Electronic Engines	3
WLD 112	Basic Welding Processes	2
DIE 134	Mechanical Fuel Injection	3

Total Credits 43

FALL SEMESTER I

MAT 101
*DIE 110
*DIE 112
**DIE 121

SUMMER SEMESTER I

**DIE 147
DIE 115
WLD 112
DIE 134

SPRING SEMESTER I

ENG 101
CIS 111
*HYD 112

*DIE 125
**DIE 145

*CORE

**CONCENTRATION - MARINE SYSTEMS

Medical Transcription

The Medical Transcription curriculum prepares individuals to become medical language specialists who interpret and transcribe dictation by physicians and other healthcare professionals in order to document patient care and facilitate delivery of healthcare services.

Students will gain extensive knowledge of medical terminology, pharmacology, human diseases, diagnostic studies, surgical procedures, and laboratory procedures. In addition to word processing skill and knowledge of voice processing equipment, students must master English grammar, spelling, and proofreading.

Graduates should qualify for employment in hospitals, medical clinics, doctors' offices, private transcription businesses, research facilities, insurance companies, and publishing companies. After acquiring work experience, individuals can apply to the American Association for Medical Transcription to become Certified Medical Transcriptionists.

Semester Hour Credits

I. General Education Course

ENG 111	Expository Writing	3
ENG 114	Professional Research & Reporting	3

II. Major Courses

OST 136	Word Processing	2
OST 164	Text Editing Applications	3
OST 201	Medical Transcription I	4
OST 202	Medical Transcription II	4
MED 121	Medical Terminology I	3
MED 122	Medical Terminology II	3
OST 131	Keyboarding	2
OST 149	Medical Legal Issues	2
OST 247	CPT Coding in the Medical Office	2
OST 248	Diagnostic Coding	2
BIO 106	Anatomy/Physiology/Microbiology	3
CIS 111	Basic PC Literacy	2

Total Credits 38

FALL SEMESTER I

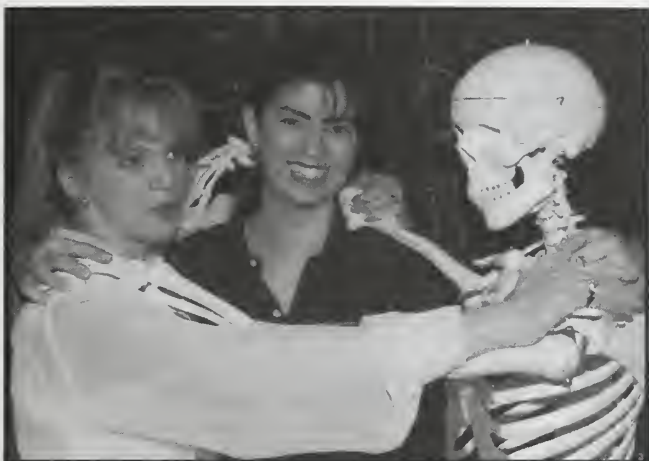
ENG 111
BIO 106
MED 121
OST 131
OST 136

SUMMER SEMESTER I

OST 149
OST 164
OST 202
OST 247

SPRING SEMESTER I

ENG 114
CIS 111
MED 122
OST 201
OST 248



Pharmacy Technology

The Pharmacy Technology curriculum prepares individuals to assist the pharmacist in duties that a technician can legally perform and to function within the boundaries prescribed by the pharmacist and the employment agency.

Graduates will maintain patient's records; fill prescriptions; maintain inventories; set up, package, and label medication doses; prepare solutions and intravenous additives; and perform clerical duties, including insurance forms and forms required by third-party payers.

Graduates may be employed in hospitals, nursing homes, private and chain drug stores, research laboratories, wholesale drug companies, and pharmaceutical manufacturing facilities. Graduates will qualify to take the National Certification Examination developed by the Pharmacy Technician Certification Board.

Semester Hour Credits

I. General Education Courses

BIO 106	Intro to Anat/Phys/Micro	3
ENG 111	Expository Writing	3
BUS 151	People Skills	3

II. Major Courses

PHM 110	Intro to Pharmacy	3
PHM 111	Pharmacy Practice I	4
PHM 118	Sterile Products	4
PHM 115	Pharmacy Calculations	3
PHM 120	Pharmacology I	3
PHM 140	Trends in Pharmacy	2
PHM 125	Pharmacology II	3
PHM 138	Pharmacy Clinical	8
PHM 112	Pharmacology Practice II	3
CIS 111	PC Literacy	2
PHM 165	Pharmacy Prof. Practice	2

Total Credits 46

FALL SEMESTER I

PHM 110
PHM 111
PHM 115
BIO 106
BUS 151
CIS 111

SUMMER SEMESTER I

PHM 140
PHM 125
PHM 138

SPRING SEMESTER I

PHM 118
PHM 120
PHM 112
PHM 165
ENG 111

Practical Nursing

The Practical Nursing curriculum prepares individuals with the knowledge and skills to provide nursing care to children and adults.

Students will participate in assessment, planning, implementing, and evaluating nursing care.

Graduates are eligible to apply to take the National Council Licensure Examination (NCLEX-PN) which is required for practice as a Licensed Practical Nurse. Employment opportunities include hospitals, rehabilitation/long term care/home health facilities, clinics, and physicians' offices.

Semester Hour Credits

I. General Education Courses

ENG 111	Expository Writing	3
PSY 150	General Psychology	3
BIO 106	Intro to Anat/Phys/Micro	3
PSY 241	Developmental Psych	3

II. Major Courses

NUR 101	Practical Nursing I	11
NUR 102	Practical Nursing II	12
NUR 103	Practical Nursing III	10

III. Other Required Courses

CIS 111	PC Literacy	2
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Total Credits 47

FALL SEMESTER I

NUR 101
PSY 150
BIO 106

SUMMER SEMESTER I

NUR 103
CIS 111

SPRING SEMESTER I

NUR 102
PSY 241
ENG 111

Welding Technology

The Welding Technology curriculum provides students with a sound understanding of the science, technology, and applications essential for successful employment in the welding and metal industry.

Instruction includes consumable and non-consumable electrode welding and cutting processes. Courses in math, blueprint reading, metallurgy, welding inspection, and destructive and non-destructive testing provides the student with industry-standard skills developed through classroom training and practical application.

Successful graduates of the Welding Technology curriculum may be employed as entry level technicians in welding and metalworking industries. Career opportunities also exist in construction, manufacturing, fabrication, sales, quality control, supervision, and welding-related self-employment.

Semester Hour Credits

I. General Education Courses

ENG 101	Applied Communications I	3
MAT 101	Applied Mathematics I	3

II. Major Courses

WLD 110	Cutting Processes	2
WLD 115	SMAW (Stick) Plate	5
WLD 121	GMAW (MIG) FCAW/Plate	4
WLD 131	GTAW (TIG) Plate	4
WLD 141	Symbols and Specifications	3
WLD 116	SMAW (Stick) Plate/Pipe	4
WLD 143	Welding Metallurgy	2
CIS 111	Basic PC Literacy	2
WLD 231	GTAW (TIG) Pipe	3
WLD 215	SMAW (Stick) Pipe	4
WLD 132	GTAW (TIG) Plate/Pipe	3

Total Credits 42

FALL SEMESTER I

MAT 101
WLD 141
WLD 110
WLD 115
WLD 131

SUMMER SEMESTER I

WLD 215
WLD 231

SPRING SEMESTER I

ENG 101
CIS 111
WLD 116
WLD 121
WLD 132
WLD 143

CERTIFICATE PROGRAMS

Basic Law Enforcement Training

The Basic Law Enforcement Training curriculum Certification Examination mandated by the North Carolina Criminal Justice Education and Training Standard Commission prepares individuals to take the Justice Officers Basic Training Certification Examination mandated by the North Carolina Sheriffs' Education and Training Standards Commission. Successful completion of the curriculum certificate program requires that the student satisfy the minimum requirements for certification by the Criminal Justice Commission and/or the Sheriff's Commission. The student satisfactory completing this program should possess at least the minimum degree of general attributes, knowledge, and skills to function as an inexperienced law enforcement officer.

Job opportunities are available with state, county, and municipal governments in North Carolina. In addition, knowledge, skills, and abilities acquired in this course of study qualify one for job opportunities with private enterprises in such areas as industrial, retail, and private security.

CJC-100 - Law Enforcement Training

Prerequisite: None

This course is designed to provide the student with skills and knowledge necessary to perform those tasks essential to function in law enforcement. The course consists of 582 hours of instruction in the following topic areas:

(1)	Course Orientation	8 hours
(2)	Constitutional Law	4 hours
(3)	Laws Of Arrest, Search, and Seizure	16 hours
(4)	Mechanics of Arrest; Arrest Procedures	8 hours
(5)	Law Enforcement Communications and Information Systems	4 hours
(6)	Elements of Criminal Law	24 hours
(7)	Defensive Tactics	24 hours
(8)	Juvenile Law and Procedures	8 hours
(9)	First Responder	40 hours
(10)	Firearms	48 hours
(11)	Patrol Techniques	16 hours
(12)	Crime Prevention Techniques	4 hours
(13)	Field Notetaking and Report Writing	16 hours
(14)	Mechanics Of Arrest; Vehicle Stops	6 hours
(15)	Mechanics Of Arrest; Custody Procedures	2 hours
(16)	Mechanics Of Arrest; Processing Arrestee	4 hours
(17)	Crisis Management	12 hours
(18)	Special Populations	12 hours



Machining Technology

CERTIFICATE PROGRAM MACHINING TECHNOLOGY EVENING PROGRAM

See page 19 for description.

FALL SEMESTER I

MAC 111
MAC 124

SPRING SEMESTER I

MAC 112
MAC122

Phlebotomy

The Phlebotomy curriculum prepares individuals to obtain blood and other specimens for the purpose of laboratory analysis.

Course work includes proper specimen collection and handling, communication skills, and maintaining patient data.

Graduates may qualify for employment in hospitals, clinics, physicians' offices, and other health care settings and may be eligible for national certification as phlebotomy technicians.

Semester Hour Credits

I. General Education Courses

II. Major Courses

PBT 100	Phlebotomy Technology	6
PBT 101	Phlebotomy Practicum	3
BUS 151	People Skills	3

Total Credits 12

(19) Civil Disorders	8 hours
(20) Criminal Investigations	32 hours
(21) Interviews; Field and In-Custody	8 hours
(22) Controlled Substances	6 hours
(23) ABC Laws and Procedures	4 hours
(24) Electrical and Hazardous Materials Emergencies	12 hours
(25) Motor Vehicle Law	20 hours
(26) Techniques of Traffic Law Enforcement	6 hours
(27) Traffic Accident Investigation	20 hours
(28) Law Enforcement Driver Training	44 hours
(29) Preparing For and Testifying in Court	16 hours
(30) Dealing With Victims And The Public	4 hours
(31) Ethics of Professional Law Enforcement	6 hours
(32) Physical Fitness	44 hours
(33) Civil Process	24 hours
(34) Supplemental Custody Procedures	8 hours
(35) Testing	20 hours
(36) Review	20 hours
(37) Tactical Communication	8 hours
(38) Human Resource Development	16 hours

Total: 582 hours

Total Credits 18



Real Estate

The Real Estate curriculum provides the prelicensing education required by the North Carolina Real Estate Commission, prepares individuals to enter the profession, and offers additional education to meet professional development needs.

Course work includes the practices and principles of real estate, emphasizing financial and legal applications, property development, and property values.

Graduates should qualify for North Carolina Real Estate Sales and Broker examinations. They should be able to enter apprenticeship training and to provide real estate services to consumers in a competent manner.

Semester Hour Credits

I. General Education Course

II. Major Courses

RLS 112	Real Estate Fundamentals	5
RLS 113	Real Estate Mathematics	2
RLS 114	Real Estate Brokerage	2
RLS 115	Real Estate Finance	2
RLS 116	Real Estate Law	2

Total Credits 13

Real Estate Appraisal

The Real Estate Appraisal curriculum is designed to prepare individuals to enter the appraisal profession as a registered trainee and advance to licensed or certified appraiser levels.

Course work includes appraisal theory and concepts with applications, the North Carolina Appraisers Act, North Carolina Appraisal Board rules, and the Uniform Standards of Professional Appraisal Practice.

Graduates should be prepared to complete the North Carolina Registered Trainee Examinations and advance to licensure or certification levels as requirements are met.

Semester Hour Credits

I. General Education Course

II. Major Courses

REA 101	Intro. to Real Estate Appraisal R-1	2
REA 102	Valuation Principles & Practices R-2	2
REA 103	Applied Residential Property Valuation R-3 ...	2
REA 201	Intro. to Income Property Appraisal G-1	2
REA 202	Advanced Income Capital. Procecd G-2	2
REA 203	Applied Income Property Valuation G-3	2

Total Credits 12



Truck Driver Training

The Truck Driver Training curriculum prepares individuals to drive tractor trailer rigs. This program teaches proper driving procedures, safe driver responsibility, commercial motor vehicle laws and regulations, and the basic principles and practices for operating commercial vehicles.

The course work includes motor vehicle laws and regulations, map reading, vehicle maintenance, safety procedures, daily logs, defensive driving, freight handling, security, and fire protection. Highway driving, training range exercises, and classroom lectures are used to develop the student's knowledge and skills.

Graduates of the curriculum are qualified to take the Commercial Driver's License and employable by commercial trucking firms. They may also become owner-operators and work as private contract haulers.

Semester Hour Credits

I. General Education Courses

II. Major Courses

TRP 100	Truck Driver Training	12
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Total Credits: 12

COURSE DESCRIPTIONS

Class Lab Credit Clinical

ACA 111 College Student Success 1 0 1

Prerequisites:

Corequisites: None

This course introduces the College's physical, academic, and social environment and promotes the personal development essential for success. Topics include campus facilities and resources; policies, procedures, and programs; study skills; and life management issues such as health, self-esteem, motivation, goal-setting, diversity, and communication. Upon completion, students should be able to function effectively within the college environment to meet their educational objectives.

ACC 120 Prin Of Accounting I 3 2 4

Prerequisites

Corequisites: None

This course introduces the basic principles and procedures of accounting. Emphasis is placed on collecting, summarizing, analyzing, and reporting financial information. Upon completion, students should be able to analyze data and prepare journal entries and reports as they relate to the accounting cycle.

ACC 121 Prin of Accounting II 3 2 4

Prerequisites: ACC 120

Corequisites: None

This course is a continuation of ACC 120. Emphasis is placed on corporate and managerial accounting for both external and internal reporting and decision making. Upon completion, students should be able to analyze and record corporate transactions, prepare financial statements and reports, and interpret them for management.

ACC 131 Federal Income Taxes 2 2 3

Prerequisites:

Corequisites: None

This course provides an overview of federal income taxes for individuals, partnerships, and corporations. Emphasis is placed on the application of the Internal Revenue Code to preparation of tax returns for individuals, partnerships, and corporations. Upon completion, students should be able to complete federal tax returns for individuals, partnerships, and corporations.

Class Lab Credit Clinical

ACC 150 Computer Gen Ledger 1 2 2

Prerequisites: ACC 115 or ACC 120

Corequisites: None

This course introduces microcomputer applications related to the major accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

ACC 175 Hotel Restaurant Acct 3 2 4

Prerequisites:

Corequisites: None

This course covers generally accepted accounting principles and the uniform system of accounts for small hotels and motels of the American Hotel and Motel Association. Emphasis is placed on the accounting cycle, analysis of financial statements, and payroll procedures including treatment of tips. Upon completion, students should be able to demonstrate competence in the accounting principles and procedures used in hotels and restaurants.

ACC 220 Intermed Accounting I 3 2 4

Prerequisites: ACC 121

Corequisites: None

This course is a continuation of the study of accounting principles with in-depth coverage of theoretical concepts and financial statements. Topics include generally accepted accounting principles and statements and extensive analyses of balance sheet components. Upon completion, students should be able to demonstrate competence in the conceptual framework underlying financial accounting, including the application of financial standards.

ACC 221 Intermed Accounting II 3 2 4

Prerequisites: ACC 220

Corequisites: None

This course is a continuation of ACC 220. Emphasis is placed on special problems which may include leases, bonds, investments, ratio analyses, present value applications, accounting changes, and corrections. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 225 Cost Accounting 3 0 3

Prerequisites: ACC 121

Corequisites: None

This course introduces the nature and purposes of cost accounting as an information system for planning and control. Topics include direct materials, direct labor, factory overhead, pro-

CAPE FEAR COMMUNITY COLLEGE

Class Lab Credit Clinical

cess, job order, and standard cost systems. Upon completion, students should be able to demonstrate an understanding of the principles involved and display an analytical problem-solving ability for the topics covered.

ACC 269 Auditing 3 0 3
Prerequisites: ACC 220
Corequisites: None

This course covers the overall framework of the process of conducting audits and investigations. Emphasis is placed on collecting data from working papers, arranging and systematizing the audit, and writing the audit report. Upon completion, students should be able to demonstrate competence in applying the generally accepted auditing standards and the procedures for conducting an audit.

AHR 110 Intro to Refrigeration 2 6 5
Prerequisites:
Corequisites: None

This course introduces the basic refrigeration process used in mechanical refrigeration and air conditioning systems. Topics include terminology, safety, and identification and function of components; refrigeration cycle; and tools and instrumentation used in mechanical refrigeration systems. Upon completion, students should be able to identify refrigeration systems and components, explain the refrigeration process, and use the tools and instrumentation of the trade.

AHR 112 Heating Technology 2 4 4
Prerequisites:
Corequisites: None

This course covers the fundamentals of heating including oil, gas, and electric heating systems. Topics include safety, tools and instrumentation, system operating characteristics, installation techniques, efficiency testing, electrical power, and control systems. Upon completion, students should be able to explain the basic oil, gas, and electrical heating systems and describe the major components of a heating system.

AHR 113 Comfort Cooling 2 4 4
Prerequisites:
Corequisites: None

This course covers the installation procedures, system operations, and maintenance of residential and light commercial comfort cooling systems. Topics include terminology, component operation, and testing and repair of equipment used to control and produce assured comfort levels. Upon completion, students should be able to use psychometrics, manufacturer specifications, and test instruments to determine proper system operation.

Class Lab Credit Clinical

AHR 114 Heat Pump Technology 2 4 4
Prerequisites: AHR 110 or AHR 113
Corequisites: None

This course covers the principles of air source and water source heat pumps. Emphasis is placed on safety, modes of operation, defrost systems, refrigerant charging, and system performance. Upon completion, students should be able to understand and analyze system performance and perform routine service procedures.

AHR 115 Refrigeration Systems 1 3 2
Prerequisites: AHR 110
Corequisites: None

This course introduces refrigeration systems and applications. Topics include defrost methods, safety and operational control, refrigerant piping, refrigerant recovery and charging, and leak testing. Upon completion, students should be able to assist in installing and testing refrigeration systems and perform simple repairs.

AHR 120 HVACR Maintenance 1 3 2
Prerequisites:
Corequisites: None

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

AHR 130 HVAC Controls 2 2 3
Prerequisites: AHR 111 or ELC 111
Corequisites: None

This course covers the types of controls found in residential and commercial comfort systems. Topics include electrical and electronic controls, control schematics and diagrams, test instruments, and analysis and troubleshooting of electrical systems. Upon completion, students should be able to diagnose and repair common residential and commercial comfort system controls.

AHR 133 HVAC Servicing 2 6 4
Prerequisites:
Corequisites: AHR 112 or AHR 113

The course covers the maintenance and servicing of HVAC equipment. Topics include testing, adjusting, maintaining, and troubleshooting HVAC equipment and record keeping. Upon completion, students should be able to adjust, maintain, and service HVAC equipment.

COURSE DESCRIPTIONS

Class Lab Credit Clinical

AHR 140 All-Weather Systems 1 3 2

Prerequisites: AHR 112 or AHR 113

Corequisites: None

This course covers the principles of combination heating and cooling systems including gas-electric, all-electric, and oil-electric systems. Topics include PTAC's and package and split-system units. Upon completion, students should be able to understand systems performance and perform routine maintenance procedures.

AHR 151 HVAC Duct Systems I 1 3 2

Prerequisites:

Corequisites: None

This course introduces the techniques used to lay out and fabricate duct work commonly found in HVAC systems. Emphasis is placed on the skills required to fabricate duct work. Upon completion, students should be able to lay out and fabricate simple duct work.

AHR 160 Refrigerant Certification 1 0 1

Prerequisites:

Corequisites: None

This course covers the requirements for the EPA certification examinations. Topics include small appliances, high pressure systems, and low pressure systems. Upon completion, students should be able to demonstrate knowledge of refrigerants and be prepared for the EPA certification examinations.

AHR 211 Resident System Design 2 2 3

Prerequisites:

Corequisites: None

This course introduces the principles and concepts of conventional residential heating and cooling system design. Topics include heating and cooling load estimating, basic psychometrics, equipment selection, duct system selection, and system design. Upon completion, students should be able to design a basic residential heating and cooling system.

ANT 210 General Anthropology 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces the physical, archaeological, linguistic, and ethnological fields of anthropology. Topics include human origins, genetic variations, archaeology, linguistics, primatology, and contemporary cultures. Upon completion, students should be able to demonstrate an understanding of the four major fields of anthropology.

Class Lab Credit Clinical

ARC 111 Intro to Arch Technology 1 6 3

Prerequisites:

Corequisites: None

This course introduces basic architectural drafting techniques, lettering, use of architectural and engineer scales, and sketching. Topics include orthographic, isometric, and oblique drawing techniques using architectural plans, elevations, sections, and details; reprographic techniques; and other related topics. Upon completion, students should be able to prepare and print scaled drawings within minimum architectural standards.

ARC 112 Constr Matls & Methods 3 2 4

Prerequisites:

Corequisites: None

This course introduces construction materials and their methodologies. Topics include construction terminology, materials and their properties, manufacturing processes, construction techniques, and other related topics. Upon completion, students should be able to detail construction assemblies and identify construction materials and properties.

ARC 113 Residential Arch Tech 1 6 3

Prerequisites: ARC 111

Corequisites: ARC 112

This course covers intermediate residential working drawings. Topics include residential plans, elevations, sections, details, schedules, and other related topics. Upon completion, students should be able to prepare a set of residential working drawings that are within accepted architectural standards.

ARC 114 Architectural CAD 1 3 2

Prerequisites: ARC 111 or LAR 111

Corequisites: None

This course introduces basic architectural CAD techniques. Topics include basic commands and system hardware and software. Upon completion, students should be able to prepare and plot architectural drawings to scale within accepted architectural standards.

ARC 114A Architectural CAD Lab 0 3 1

Prerequisites:

Corequisites: ARC 114

This course provides a laboratory setting to enhance architectural CAD skills. Emphasis is placed on further development of commands and system operation. Upon completion, students should be able to prepare and plot scaled architectural drawings.

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Class Lab Credit Clinical

ARC 211 Light Constr Technology 1 6 3

Prerequisites: ARC 111

Corequisites: ARC 112

This course covers working drawings for light construction. Topics include plans, elevations, sections, and details; schedules; and other related topics. Upon completion, students should be able to prepare a set of working drawings which are within accepted architectural standards.

ARC 212 Commercial Constr Tech 1 6 3

Prerequisites: ARC 211

Corequisites: None

This course introduces regional construction techniques for commercial plans, elevations, sections, and details. Topics include production of a set of commercial contract documents and other related topics. Upon completion, students should be able to prepare a set of working drawings in accordance with building codes.

ARC 213 Design Project 2 6 4

Prerequisites: ARC 114 and ARC 211

Corequisites: None

This course provides the opportunity to design and prepare a set of contract documents within an architectural setting. Topics include schematic design, design development, construction documents, and other related topics. Upon completion, students should be able to prepare a set of commercial contract documents.

ARC 220 Adv Architect CAD 1 3 2

Prerequisites: ARC 114

Corequisites: None

This course provides file management, productivity, and CAD customization skills. Emphasis is placed on developing advanced proficiency techniques. Upon completion, students should be able to create prototype drawings and symbol libraries, compose sheets with multiple details, and use advanced drawing and editing commands.

ARC 230 Environmental Systems 3 3 4

Prerequisites: ARC 111 and MAT 121

Corequisites: None

This course introduces plumbing, mechanical (HVAC), and electrical systems for the architectural environment. Topics include basic plumbing, mechanical, and electrical systems for residential and/or commercial buildings with an introduction to selected code requirements. Upon completion, students should be able to develop schematic drawings for plumbing, mechanical, and electrical systems and perform related calculations.

Class Lab Credit Clinical

ARC 236 Arch Mech/Elec Tech 0 4 2

Prerequisites: ARC 230

Corequisites: None

This course covers the production of working drawings for plumbing, mechanical, and electrical (PME) systems for buildings. Topics include PME working drawing development. Upon completion, students should be able to produce PME working drawings and schedules.

ARC 250 Survey of Architecture 3 0 3

Prerequisites:

Corequisites: None

This course introduces the historical trends in architectural form. Topics include historical and current trends in architecture. Upon completion, students should be able to demonstrate an understanding of significant historical and current architectural styles.

ARC 264 Digital Architecture 1 3 2

Prerequisites: ARC 114

Corequisites: None

This course covers multiple digital architectural techniques. Topics include spreadsheets and word processing procedures, on-line resources, modems, e-mail, image capture, multimedia, and other related topics. Upon completion, students should be able to transmit/receive electronic data, create multimedia presentations, and produce a desktop publishing document.

ART 111 Art Appreciation 3 0 3

Prerequisites:

Corequisites: None

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media.

ART 114 Art History Survey I 3 0 3

Prerequisites:

Corequisites: None

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

COURSE DESCRIPTIONS

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ART 115 Art History Survey II 3 0 3

Prerequisites:

Corequisites: None

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development.

ART 116 Survey of American Art 3 0 3

Prerequisites:

Corequisites: None

This course covers the development of American art forms from colonial times to the present. Emphasis is placed on architecture, painting, sculpture, graphics, and the decorative arts. Upon completion, students should be able to demonstrate understanding of the history of the American creative experience.

ART 121 Design I 1 4 3

Prerequisites:

Corequisites: None

This course introduces the elements and principles of design as applied to two-dimensional art. Emphasis is placed on the structural elements, the principles of visual organization, and the theories of color mixing and interaction. Upon completion, students should be able to understand and use critical and analytical approaches as they apply to two-dimensional visual art.

ART 131 Drawing I 0 6 3

Prerequisites:

Corequisites: None

This course introduces the language of drawing and the use of various drawing materials. Emphasis is placed on drawing techniques, media, and graphic principles. Upon completion, students should be able to demonstrate competence in the use of graphic form and various drawing processes.

ART 132 Drawing II 0 6 3

Prerequisites: ART 131

Corequisites: None

This course continues instruction in the language of drawing and the use of various materials. Emphasis is placed on experimentation in the use of drawing techniques, media, and graphic materials. Upon completion, students should be able to demonstrate increased competence in the expressive use of graphic form and techniques.

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ART 240 Painting I 0 6 3

Prerequisites:

Corequisites: None

This course introduces the language of painting and the use of various painting materials. Emphasis is placed on the understanding and use of various painting techniques, media, and color principles. Upon completion, students should be able to demonstrate competence in the use of creative processes directed toward the development of expressive form.

ART 261 Photography I 1 4 3

Prerequisites:

Corequisites: None

This course introduces photographic equipment, theory, and processes. Emphasis is placed on camera operation, composition, darkroom technique, and creative expression. Upon completion, students should be able to successfully expose, develop, and print a well-conceived composition.

AST 111 Descriptive Astronomy 3 0 3

Prerequisites:

Corequisites: None

This course introduces an overall view of modern astronomy. Topics include an overview of the solar system, the sun, stars, galaxies, and the larger universe. Upon completion, students should be able to demonstrate an understanding of the universe around them.

AST 111A Descriptive Astro Lab 0 2 1

Prerequisites:

Corequisites: AST 111

The course is a laboratory to accompany AST 111. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 111 and which provide practical experience. Upon completion, students should be able to demonstrate an understanding of the universe around them.

ATR 112 Intro to Automation 2 3 3

Prerequisites:

Corequisites: None

This course introduces the basic principles of automated manufacturing and describes the tasks that technicians perform on the job. Topics include the history, development, and current applications of robots and automated systems including their configuration, operation, components, and controls. Upon completion, students should be able to understand the basic concepts of automation and robotic systems.

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AUB 111 Painting & Refinish I 2 6 4

Prerequisites:

Corequisites: None

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing following accepted industry standards.

AUB 112 Painting & Refinish 2 6 4

Prerequisites: AUB 111

Corequisites: None

This course covers advanced painting techniques and technologies with an emphasis on identifying problems encountered by the refinishing technician. Topics include materials application, color matching, correction of refinishing problems, and other related topics. Upon completion, students should be able to perform spot, panel, and overall refinishing repairs and identify and correct refinish problems.

AUB 114 Special Finishes 1 2 2

Prerequisites: AUB 111

Corequisites: None

This course introduces multistage finishes, custom painting, and protective coatings. Topics include base coats, advanced intermediate coats, clear coats, and other related topics. Upon completion, students should be able to identify and apply specialized finishes based on accepted industry standards.

AUB 121 Non-Struct Damage I 1 4 3

Prerequisites:

Corequisites: None

This course introduces safety, tools, and the basic fundamentals of body repair. Topics include shop safety, damage analysis, tools and equipment, repair techniques, materials selection, materials usage, and other related topics. Upon completion, students should be able to identify and repair minor direct and indirect damage including removal/repairing/replacing of body panels to accepted standards.

AUB 122 Non-Struct Damage II 2 6 4

Prerequisites:

Corequisites: None

This course covers safety, tools, and advanced body repair. Topics include shop safety, damage analysis, tools and equipment, advanced repair techniques, materials selection, materials usage, movable glass, and other related topics. Upon completion, students should be able to identify and repair or

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replace direct and indirect damage to accepted standards including movable glass and hardware.

AUB 131 Structural Damage I 2 4 4

Prerequisites:

Corequisites: None

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle which has received light/moderate structural damage.

AUB 132 Structural Damage II 2 6 4

Prerequisites: AUB 131

Corequisites: None

This course provides an in-depth study of structural damage analysis and repairs to vehicles that have received moderate to heavy structural damage. Topics include shop safety, structural analysis and measurement, equipment, structural glass, advanced repair techniques, structural component replacement and alignment, and other related topics. Upon completion, students should be able to analyze and perform repairs according to industry standards.

AUB 134 Autobody MIG Welding 1 4 3

Prerequisites:

Corequisites: None

This course covers the terms and procedures for welding the various metals found in today's autobody repair industry with an emphasis on personal/environmental safety. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, and other related topics. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standards.

AUB 136 Plastics & Adhesives 1 4 3

Prerequisites:

Corequisites: None

This course covers safety, plastic and adhesive identification, and the various repair methods of automotive plastic components. Topics include safety, identification, preparation, material selection, and the various repair procedures including refinishing. Upon completion, students should be able to identify, remove, repair, and/or replace automotive plastic components in accordance with industry standards.

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AUB 160 Body Shop Operations 1 0 1

Prerequisites:

Corequisites: None

This course introduces the day-to-day operations of autobody repair facilities. Topics include work habits and ethics, customer relations, equipment types, materials cost and control, policies and procedures, shop safety and liabilities, and other related topics. Upon completion, students should be able to understand the general operating policies and procedures associated with an autobody repair facility.

AUB 150 Automotive Detailing 1 3 2

Prerequisites:

Corequisites: None

This course covers the methods and procedures used in automotive detailing facilities. Topics include safety, engine, interior and trunk compartment detailing, buffing/polishing exterior surfaces, and cleaning and reconditioning exterior trim, fabrics, and surfaces. Upon completion, students should be able to improve the overall appearance of a vehicle.

AUB 162 Autobody Estimating 1 2 2

Prerequisites:

Corequisites: None

This course provides a comprehensive study of autobody estimating. Topics include collision damage analysis, industry regulations, flat-rate and estimated time, and collision estimating manuals. Upon completion, students should be able to prepare and interpret a damage report.

AUT 111 Basic Auto Technology 1 2 2

Prerequisites:

Corequisites: None

This course introduces basic concepts, terms, workplace safety, regulations, and service information relating to automotive technology. Emphasis is placed on developing familiarity with automotive components along with basic identification and proper use of various hand and power tools and shop equipment. Upon completion, students should be able to define and use terms associated with automobiles and identify and use basic tools and shop equipment.

AUT 115 Engine Fundamentals 2 3 3

Prerequisites:

Corequisites: None

This course covers the theory, construction, inspection, diagnosis, and repair of internal combustion engines and related systems. Topics include fundamental operating principles of engines and diagnosis, inspection, adjustment, and repair of automotive engines using appropriate service information. Upon completion, students should be able to perform basic

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diagnosis/repair of automotive engines using appropriate tools, equipment, procedures, and service information.

AUT 116 Engine Repair 1 3 2

Prerequisites:

Corequisites: None

This course covers service/repair/rebuilding of block, head, and internal engine components. Topics include engine repair/reconditioning using service specifications. Upon completion, students should be able to rebuild/recondition an automobile engine to service specifications.

AUT 141 Susp & Steering Sys 2 4 4

Prerequisites:

Corequisites: None

This course covers principles of operation, types, and diagnosis/repair of suspension and steering systems to include steering geometry. Topics include manual and power steering systems and standard and electronically controlled suspension and steering systems. Upon completion, students should be able to service and repair various steering and suspension components, check and adjust various alignment angles, and balance wheels.

AUT 151 Brake Systems 2 2 3

Prerequisites:

Corequisites: None

This course covers principles of operation and types, diagnosis, service, and repair of brake systems. Topics include drum and disc brakes involving hydraulic, vacuum boost, hydroboost, electrically powered boost, and anti-lock and parking brake systems. Upon completion, students should be able to diagnose, service, and repair various automotive braking systems.

AUT 161 Electrical Systems 2 6 4

Prerequisites:

Corequisites: None

This course covers basic electrical theory and wiring diagrams, test equipment, and diagnosis/repair/replacement of batteries, starters, alternators, and basic electrical accessories. Topics include diagnosis and repair of battery, starting, charging, lighting, and basic accessory systems problems. Upon completion, students should be able to diagnose, test, and repair the basic electrical components of an automobile.

AUT 164 Automotive Electronics 2 2 3

Prerequisites:

Corequisites: None

This course covers fundamentals of electrical/electronic circuitry, semi-conductors, and microprocessors. Topics include

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Ohm's law, circuits, AC/DC current, solid state components, digital applications, and the use of digital multimeters. Upon completion, students should be able to apply Ohm's law to diagnose and repair electrical/electronic circuits using digital multimeters and appropriate service information.

AUT 171 Heating & Air Cond 2 3 3

Prerequisites:

Corequisites: None

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis/repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

AUT 181 Engine Perform-Electric 2 3 3

Prerequisites:

Corequisites: None

This course covers the principles, systems, and procedures required for diagnosing and restoring engine performance using electrical/electronics test equipment. Topics include procedures for diagnosis and repair of ignition, emission control, and related electronic systems. Upon completion, students should be able to describe operation of and diagnose/repair ignition/emission control systems using appropriate test equipment and service information.

AUT 183 Engine Perform-Fuels 2 3 3

Prerequisites:

Corequisites: None

This course covers the principles of fuel delivery/management, exhaust/emission systems, and procedures for diagnosing and restoring engine performance using appropriate test equipment. Topics include procedures for diagnosis/repair of fuel delivery/management and exhaust/emission systems using appropriate service information. Upon completion, students should be able to describe, diagnose, and repair engine fuel delivery/management and emission control systems using appropriate service information and diagnostic equipment.

AUT 221 Automatic Transmissions 2 6 4

Prerequisites:

Corequisites: None

This course covers operation, diagnosis, service, and repair of automatic transmissions/transaxles. Topics include hydraulic, pneumatic, mechanical, and electrical/electronic operation of automatic drive trains and the use of appropriate service tools and equipment. Upon completion, students should be able to

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explain operational theory and diagnose and repair automatic drive trains.

AUT 222 Adv Auto Drive Trains 2 2 3

Prerequisites:

Corequisites: None

This course covers advanced diagnosis and repair of automatic drive trains. Topics include testing of sensors, actuators, and control modules using on-board diagnostics, appropriate service information, and equipment. Upon completion, students should be able to perform advanced automatic drive train diagnosis and repair.

AUT 231 Man Drive Trains/Axles 2 3 3

Prerequisites:

Corequisites: None

This course covers the operation, diagnosis, and repair of manual transmissions/transaxles, clutches, driveshafts, axles, and final drives. Topics include theory of torque, power flow, and manual drive train service and repair using appropriate service information, tools, and equipment. Upon completion, students should be able to explain operational theory and diagnose and repair manual drive trains.

AUT 241 Adv Chassis/Suspension 2 6 4

Prerequisites: AUT 141

Corequisites: None

This course provides advanced training in automotive chassis and suspension using computerized two and four-wheel alignment equipment. Emphasis is placed on suspension and chassis system design, construction, and repair for modern front and rear drive vehicles. Upon completion, students should be able to perform necessary adjustments and repairs on vehicles using computerized alignment equipment.

AUT 271 Adv Heating & A/C 2 2 3

Prerequisites:

Corequisites: None

This course utilizes service information and test equipment to diagnose automatic temperature control and ventilation systems. Topics include advanced testing of sensors, actuators, and control modules using service information, on-board diagnostics, and/or appropriate test equipment. Upon completion, students should be able to perform advanced diagnosis and repair on automatic temperature control and ventilation systems.

AUT 281 Adv Engine Performance 2 2 3

Prerequisites:

Corequisites: None

This course utilizes service information and specialized test equipment to diagnose/repair power train control systems.

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Topics include computerized ignition, fuel and emission systems, related diagnostic tools and equipment, data communication networks, and service information. Upon completion, students should be able to perform advanced engine performance diagnosis and repair.

BIO 106 Intro to Anat/Phys/Micro 2 2 3

Prerequisites:

Corequisites: None

This course covers the fundamental and principle concepts of human anatomy and physiology and microbiology. Topics include an introduction to the structure and function of cells, tissues, and human organ systems, and an overview of microbiology, epidemiology, and control of microorganisms. Upon completion, students should be able to identify structures and functions of the human body and describe microorganisms and their significance in health and disease. This is a certificate and diploma level course.

BIO 110 Principles of Biology 3 3 4

Prerequisites

Corequisites: None

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life.

BIO 111 General Biology I 3 3 4

Prerequisites

Corequisites: None

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels.

BIO 112 General Biology II 3 3 4

Prerequisites: BIO 111

Corequisites: None

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels.

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BIO 163 Basic Anat & Physiology 4 2 5

Prerequisites:

Corequisites: None

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

BIO 165 Anatomy & Physiology I 3 3 4

Prerequisites:

Corequisites: None

This course is the first of a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships.

BIO 166 Anatomy & Physiology II 3 3 4

Prerequisites: BIO 165

Corequisites: None

This course is the second in a two-course sequence which provides a comprehensive study of the anatomy and physiology of the human body. Topics include the structure, function, and interrelationship of organ systems with emphasis on the processes which maintain homeostasis. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and the interrelationships of all body systems.

BIO 175 General Microbiology 2 2 3

Prerequisites: BIO 110, BIO 163, BIO 166 or BIO 169

Corequisites: None

This course covers principles of microbiology with emphasis on microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity. Upon completion, students should be able to demonstrate knowledge of microorganisms and the disease process as well as aseptic and sterile techniques.

BPR 111 Blueprint Reading 1 2 2

Prerequisites:

Corequisites: None

This course introduces the basic principles of blueprint reading. Topics include line types, orthographic projections.

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dimensioning methods, and notes. Upon completion, students should be able to interpret basic blueprints and visualize the features of a part.

BPR 121 Blueprint Reading: Mech 1 2 2

Prerequisites: BPR 111 or MAC 131

Corequisites: None

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

BPR 130 Blueprint Reading/Const 1 2 2

Prerequisites:

Corequisites: None

This course covers the interpretation of blueprints and specifications that are associated with the construction trades. Emphasis is placed on interpretation of details for foundations, floor plans, elevations, and schedules. Upon completion, students should be able to read and interpret a set of construction blueprints.

BTB 101 Boat Building I 5 15 10

Prerequisites:

Corequisites: DFT 100

This course introduces the modern wood and composite boat shop. Topics include maintaining, sharpening, and safely using hand and power tools, lofting, and properly utilizing materials common in the boat-building industry. Upon completion, students should be able to loft a simple flat or V-bottom boat and build it using sheet plywood construction methods. This is a diploma-level course.

BTB 102 Boat Building II 4 15 9

Prerequisites: BTB 101

Corequisites: None

This course introduces more advanced hull development. Topics include advanced lofting, building jigs and birdcage building forms, wood and composite lamination techniques, marine finishing materials and methods, and quality control procedures. Upon completion, students should be able to build, fit out, and finish a small boat using modern fabrics, core materials, and methods of construction. This is a diploma-level course.

BTB 103 Yacht Joiner Practices I 2 4 4

Prerequisites: BTB 101

Corequisites: None

This course introduces the fundamental skills and attention to detail necessary to fine yacht joinery. Emphasis is placed on fitting, mortise/tenon, and dowel joints; fitting dados in

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grooves; and building a project to close tolerances from a blueprint. Upon completion, students should be able to build a cabinet carcass with face frame, round corner posts, laminate surfaces, and a dove-tailed drawer. This is a diploma-level course.

BTB 104 Yacht Joiner Practices II 1 4 3

Prerequisites: BTB 103

Corequisites: BTB 102

This course is an extension of BTB 103 and emphasizes finishing cabinets and rough-in of yacht interiors. Topics include manufacturing and fitting moldings, door construction methods, bright work finishing, and bulkhead and cabin sole fitting and installation. Upon completion, students should be able to build raised panel doors and moldings, apply modern finishes, and rough in bulkheads, soles, and yacht furniture. This is a diploma-level course.

BTB 105 Yacht Repair/Renovation 3 4 5

Prerequisites: BTB 102

Corequisites: FBG 100

This course introduces repair/renovation principles and methods for wood and fiberglass boats. Emphasis is placed on surveying boats for needed repairs, planning repairs, and estimating costs in tools, materials, and techniques used in repair and renovation. Upon completion, students should be able to plan and execute repairs in wood and fiberglass boats (structural and cosmetic) and execute marine refinishing techniques. This is a diploma-level course.

BUS 110 Introduction to Business 3 0 3

Prerequisites:

Corequisites: None

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

BUS 115 Business Law I 3 0 3

Prerequisites:

Corequisites: None

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations.

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BUS 121 Business Math

2 2 3

Prerequisites:

Corequisites: None

This course covers fundamental mathematical operations and their application to business problems. Topics include payroll, pricing, interest and discount, commission, taxes, and other pertinent uses of mathematics in the field of business. Upon completion, students should be able to apply mathematical concepts to business.

BUS 137 Principles of Manage

3 0 3

Prerequisites:

Corequisites: None

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management.

BUS 151 People Skills

3 0 3

Prerequisites:

Corequisites: None

This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.

BUS 225 Business Finance

2 2 3

Prerequisites: ACC 120

Corequisites: None

This course provides an overview of business financial management. Emphasis is placed on financial statement analysis, time value of money, management of cash flow, risk and return, and sources of financing. Upon completion, students should be able to interpret and apply the principles of financial management.

BUS 230 Small Business Manage

3 0 3

Prerequisites:

Corequisites: None

This course introduces the challenges of entrepreneurship including the startup and operation of a small business. Topics include market research techniques, feasibility studies, site analysis, financing alternatives, and managerial decision making. Upon completion, students should be able to develop a small business plan.

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BUS 239 Bus Applications Seminar

1 2 2

Prerequisites: ACC 120, BUS 115, BUS 137, MKT 120, and either ECO 151, 251 or 252

Corequisites: None

This course is designed as a capstone course for Business Administration majors. Emphasis is placed on decision making in the areas of management, marketing, production, purchasing, and finance. Upon completion, students should be able to apply the techniques, processes, and vital professional skills needed in the work place.

BUS 240 Business Ethics

3 0 3

Prerequisites:

Corequisites: None

This course introduces contemporary and controversial ethical issues that face the business community. Topics include moral reasoning, moral dilemmas, law and morality, equity, justice and fairness, ethical standards, and moral development. Upon completion, students should be able to demonstrate an understanding of their moral responsibilities and obligations as members of the workforce and society.

BUS 270 Professional Development

3 0 3

Prerequisites:

Corequisites: None

This course provides basic knowledge of self-improvement techniques as related to success in the professional world. Topics include positive human relations, job-seeking skills, and projecting positive self-image. Upon completion, students should be able to demonstrate competent personal and professional skills necessary to get and keep a job.

BUS 280 REAL Small Business

4 0 4

Prerequisites:

Corequisites: None

This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write and implement a viable business plan and seek funding.

CAR 111 Carpentry I

4 15 9

Prerequisites:

Corequisites: None

This course introduces the theory and construction methods associated with the building industry, including framing, materials, tools, and equipment. Topics include safety, hand/power tool use, site preparation, measurement and layout, footings and foundations, construction framing, and other

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related topics. Upon completion, students should be able to safely lay out and perform basic framing skills with supervision. This is a diploma-level course.

CAR 112 Carpentry II 4 15 9

Prerequisites: CAR 111

Corequisites: None

This course covers the advanced theory and construction methods associated with the building industry including framing and exterior finishes. Topics include safety, hand/power tool use, measurement and layout, construction framing, exterior trim and finish, and other related topics. Upon completion, students should be able to safely frame and apply exterior finishes to a residential building with supervision.

CAR 113 Carpentry III 3 9 6

Prerequisites: CAR 111

Corequisites: None

This course covers interior trim and finishes. Topics include safety, hand/power tool use, measurement and layout, specialty framing, interior trim and finishes, cabinetry, and other related topics. Upon completion, students should be able to safely install various interior trim and finishes in a residential building with supervision.

CAR 114 Residential Bldg Codes 3 0 3

Prerequisites:

Corequisites: None

This course covers building codes and the requirements of state and local construction regulations. Emphasis is placed on the minimum requirements of the North Carolina building codes related to residential structures. Upon completion, students should be able to determine if a structure is in compliance with North Carolina building codes.

CAR 115 Res Planning/Estimating 3 0 3

Prerequisites: BPR 130

Corequisites: None

This course covers project planning, management, and estimating for residential or light commercial buildings. Topics include planning and scheduling, interpretation of working drawings and specifications, estimating practices, and other related topics. Upon completion, students should be able to perform quantity take-offs and cost estimates.

CET 110 Intro to CET 0 3 1

Prerequisites:

Corequisites: None

This course introduces the basic skills required for computer technicians. Topics include career choices, safety practices, technical problem solving, scientific calculator usage, solder-

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ing/desoldering, keyboarding skills, engineering computer applications, and other related topics. Upon completion, students should be able to safely solder/desolder and use a scientific calculator and computer applications to solve technical problems.

CET 111 Comp Upgrade/Repair I 2 3 3

Prerequisites:

Corequisites: None

This course is the first of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include safety practices, CPU/memory/bus identification, disk subsystem, hardware/software installation/configuration, common device drivers, data recovery, system maintenance, and other related topics. Upon completion, students should be able to safely repair and/or upgrade computer systems to perform within specifications.

CET 211 Comp Upgrade/Repair II 2 3 3

Prerequisites: CET 111

Corequisites: None

This course is the second of two courses covering repairing, servicing, and upgrading computers and peripherals in preparation for industry certification. Topics include resolving resource conflicts and system bus specifications, configuration and troubleshooting peripherals, operating system configuration and optimization, and other related topics. Upon completion, students should be able to identify and resolve system conflicts and optimize system performance.

CET 212 Integrated Mfg Systems 1 3 2

Prerequisites: ELN 237

Corequisites: None

This course covers computer topics related to integrated manufacturing systems common to current manufacturing facilities. Topics include robot programming, automated control systems, PLCs, data communication, and networking in an integrated manufacturing environment, and other related topics. Upon completion, students should be able to program robots using teaching pendants and troubleshoot and maintain network installations related to integrated manufacturing systems.

CHM 131 Intro to Chemistry 3 0 3

Prerequisites:

Corequisites: None

This course introduces the fundamental concepts of inorganic chemistry. Topics include measurement, matter and energy, atomic and molecular structure, nuclear chemistry, stoichiometry, chemical formulas and reactions, chemical bonding, gas laws, solutions, and acids and bases. Upon completion, stu-

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dents should be able to demonstrate a basic understanding of chemistry as it applies to other fields.

CHM 131A Intro Chem Lab 0 3 1

Prerequisites:

Corequisites: CHM 131

This course is a laboratory to accompany CHM 131. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 131. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 131.

CHM 132 Organic and Biochemistry 3 3 4

Prerequisites: CHM 131

Corequisites: None

This course provides a survey of major functional classes of compounds in organic and biochemistry. Topics include structure, properties, and reactions of the major organic and biological molecules and basic principles of metabolism. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts needed to pursue studies in related professional fields.

CHM 151 General Chemistry I 3 3 4

Prerequisites:

Corequisites: None

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152.

CHM 152 General Chemistry II 3 3 4

Prerequisites: CHM 151

Corequisites: None

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields.

CIS 110 Intro to Computers 2 2 3

Prerequisites:

Corequisites: None

This course provides an introduction to computers and computing. Topics include the impact of computers on society,

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ethical issues, and hardware/software applications, including spreadsheets, databases, word processors, graphics, the Internet, and operating systems. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems.

CIS 111 Basic PC Literacy 1 2 2

Prerequisites:

Corequisites: None

This course provides a brief overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

CIS 112 Windows™ 1 2 2

Prerequisites: CIS 110 or CIS 111

Corequisites: None

This course includes the fundamentals of the Windows™ software. Topics include graphical user interface, icons, directories, file management, accessories, and other applications. Upon completion, students should be able to use Windows™ software in an office environment.

CIS 115 Intro to Prog & Logic 2 2 3

Prerequisites: MAT 080 or MAT 090

Corequisites: None

This course introduces computer programming and problem solving in a programming environment, including an introduction to operating systems, text editor, and a language translator. Topics include language syntax, data types, program organization, problem-solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language.

CIS 118 IS Profess Communication 2 0 2

Prerequisites:

Corequisites: None

This course prepares the information systems professional to communicate with corporate personnel from management to end-users. Topics include information systems cost justification tools, awareness of personal hierarchy of needs, addressing these needs, and discussing technical issues with non-technical personnel. Upon completion, students should be able to communicate information systems issues to technical and non-technical personnel.

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	<u>Class</u>	<u>Lab</u>	<u>Credit</u>	<u>Clinical</u>
CIS 120 Spreadsheet I	2	2	3	
Prerequisites: CIS 110 or CIS 111				
Corequisites: None				

This course introduces basic spreadsheet design and development. Topics include writing formulas, using functions, enhancing spreadsheets, creating charts, and printing. Upon completion, students should be able to design and print basic spreadsheets and charts.

CIS 130 Survey of Operating Sys	2	3	3	
Prerequisites:				
Corequisites: None				

The course covers operating system concepts which are necessary for maintaining and using computer systems. Topics include disk, file, and directory structures; installation and setup; resource allocation, optimization, and configuration; system security; and other related topics. Upon completion, students should be able to install and configure operating systems and optimize performance. In addition the student will study the basic theory of single-user, single-task, multi-user and multi-tasking operating systems.

CIS 152 Database Concept & Apps	2	2	3	
Prerequisites: CIS 110, CIS 111, or CIS 115				
Corequisites: None				

This course introduces database design and creation using a DBMS product. Topics include database terminology, usage in industry, design theory, types of DBMS models, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to create simple database tables, queries, reports, and forms which follow acceptable design practices.

CIS 153 Database Applications	2	2	3	
Prerequisites: CIS 152				
Corequisites: None				

This course covers advanced database functions continued from CIS 152. Topics include manipulating multiple tables, advanced queries, screens and reports, linking, and command files. Upon completion, students should be able to create multiple table systems that demonstrate updates, screens, and reports representative of industry requirements.

CIS 169 Business Presentations	1	2	2	
Prerequisites: CIS 110 or CIS 111				
Corequisites: None				

This course provides hands-on experience with a graphics presentation package. Topics include terminology, effective chart usage, design and layout, integrating hardware components, and enhancing presentations with text and graphics. Upon completion, students should be able to design and demonstrate an effective presentation.

	<u>Class</u>	<u>Lab</u>	<u>Credit</u>	<u>Clinical</u>
CIS 172 Intro to the Internet	2	3	3	
Prerequisites:				
Corequisites: None				

This course introduces the various navigational tools and services of the Internet. Topics include using Internet protocols, search engines, file compression/decompression, FTP, e-mail, list servers, and other related topics. Upon completion, students should be able to use Internet resources, retrieve/decompress files, and use e-mail, FTP, and other Internet tools.

CIS 286 Systems Analysis & Design	3	0	3	
Prerequisites: CIS 115				
Corequisites: None				

This course examines established and evolving methodologies for the analysis, design, and development of a business information system. Emphasis is placed on business systems characteristics, managing information systems projects, prototyping, CASE tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

CIS 288 Systems Project	1	4	3	
Prerequisites: CIS 227 or CIS 286				
Corequisites: None				

This course provides an opportunity to complete a significant systems project from the design phase through implementation with minimal instructor support. Emphasis is placed on project definition, documentation, installation, testing, presentation, and training. Upon completion, students should be able to complete a project from the definition phase through implementation.

CIV 110 Statics/Strength Materials	2	6	4	
Prerequisites: MAT 121				
Corequisites: None				

This course includes vector analysis, equilibrium of force systems, friction, sectional properties, stress/strain, and deformation. Topics include resultants and components of forces, moments and couples, free-body diagrams, shear and moment diagrams, trusses, frames, beams, columns, connections, and combined stresses. Upon completion, students should be able to analyze simple structures.

CJC 100 Basic Law Enforce Trn	9	27	18	
Prerequisites:				
Corequisites: None				

This course covers the skills and knowledge needed for entry-level employment as a law enforcement officer in North Carolina. Emphasis is placed on topics and areas as defined by the North Carolina Administrative Code. Upon completion,

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students should be able to demonstrate competence in the topics and areas required for the state comprehensive examination. This is a certificate-level course.

CJC 111 Intro to Criminal Justice 3 0 3

Prerequisites:

Corequisites: None

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options.

CJC 112 Criminology 3 0 3

Prerequisites:

Corequisites: None

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

CJC 113 Juvenile Justice 3 0 3

Prerequisites:

Corequisites: None

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

CJC 114 Investigative Photography 1 2 2

Prerequisites:

Corequisites: None

This course covers the operation of various photographic equipment and its application to criminal justice. Topics include using various cameras, proper exposure of film, developing film/prints, and preparing photographic evidence. Upon completion, students should be able to demonstrate and explain the role of photography and proper film exposure and development techniques.

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CJC 120 Interviews/Interrogations 1 2 2

Prerequisites:

Corequisites: None

This course covers basic and special techniques employed in criminal justice interviews and interrogations. Emphasis is placed on the interview/interrogation process, including interpretation of verbal and physical behavior and legal perspectives. Upon completion, students should be able to conduct interviews/interrogations in a legal, efficient, and professional manner and obtain the truth from suspects, witnesses, and victims.

CJC 121 Law Enforce Operations 3 0 3

Prerequisites:

Corequisites: None

This course introduces fundamental law enforcement operations. Topics include the contemporary evolution of law enforcement operations and related issues. Upon completion, students should be able to explain theories, practices, and issues related to law enforcement operations.

CJC 131 Criminal Law 3 0 3

Prerequisites:

Corequisites: None

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

CJC 132 Court Proced & Evidence 3 0 3

Prerequisites:

Corequisites: None

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

CJC 141 Corrections 3 0 3

Prerequisites:

Corequisites: None

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treat-

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ment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system.

CJC 212 Ethics & Comm Relations 3 0 3

Prerequisites:

Corequisites: None

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

CJC 213 Substance Abuse 3 0 3

Prerequisites:

Corequisites: None

This course is a study of substance abuse in our society. Topics include the history and classifications of drug abuse and the social, physical, and psychological impact of drug abuse. Upon completion, students should be able to identify various types of drugs, their effects on human behavior and society, and treatment modalities.

CJC 214 Victimology 3 0 3

Prerequisites:

Corequisites: None

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

CJC 215 Organization & Admin 3 0 3

Prerequisites:

Corequisites: None

This course introduces the components and functions of organization and administration as it applies to the agencies of the criminal justice system. Topics include operations/functions of organizations; recruiting, training, and retention of personnel; funding and budgeting; communications; span of control and discretion; and other related topics. Upon completion, students should be able to identify and discuss the basic components and functions of a criminal justice organization and its administrative operations.

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CJC 221 Investigative Principles 3 2 4

Prerequisites:

Corequisites: None

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

CJC 222 Criminalistics 3 0 3

Prerequisites:

Corequisites: None

This course covers the functions of the forensic laboratory and its relationship to successful criminal investigations and prosecutions. Topics include advanced crime scene processing, investigative techniques, current forensic technologies, and other related topics. Upon completion, students should be able to identify and collect relevant evidence at simulated crime scenes and request appropriate laboratory analysis of submitted evidence.

CJC 231 Constitutional Law 3 0 3

Prerequisites:

Corequisites: None

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

CJC 250 Forensic Biology 1 2 2

Prerequisites:

Corequisites: BIO 110 or BIO 111

This course covers important biological principles that are applied in the crime laboratory. Topics include forensic toxicology, forensic serology, microscopy, and DNA typing analysis, with an overview of organic and inorganic analysis. Upon completion, students should be able to articulate how a crime laboratory processes physical evidence submitted by law enforcement agencies.

COE 111 Co-op Work Exp I 0 10 1

Prerequisites:

Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study.

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Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 115 Work Exp Seminar I 1 0 1

Prerequisites:

Corequisites: COE 111, COE 112, COE 113, or COE 114

This course description may be written by the individual colleges.

COE 121 Co-op Work Exp II 0 10 1

Prerequisites:

Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COE 131 Co-op Work Exp III 0 10 1

Prerequisites:

Corequisites:

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

COM 110 Intro Communication 3 0 3

Prerequisites:

Corequisites: None

This course provides an overview of the basic concepts of communication and the skills necessary to communicate in various contexts. Emphasis is placed on communication theories and techniques used in interpersonal group, public, intercultural, and mass communication situations. Upon completion, students should be able to explain and illustrate the forms and purposes of human communication in a variety of contexts.

COM 231 Public Speaking 3 0 3

Prerequisites: ENG 095

Corequisites: None

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches

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and participate in group discussion with appropriate audiovisual support.

CSC 133 C Programming 2 3 3

Prerequisites:

Corequisites: None

This course introduces computer programming using the C programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays tables, pointers, and other related topics. Upon completion, students should be able to design, code, test, and debug C language programs.

CSC 134 C++ Programming 2 3 3

Prerequisites:

Corequisites: None

This course introduces object-oriented computer programming using the C++ programming language. Topics include input/output operations, iteration, arithmetic operations, arrays, pointers, filters, and other related topics. Upon completion, students should be able to design, code, test, and debug C++ language programs. In addition the student will design object-oriented programs and learn how object oriented design is used in current software application programming.

CSC 139 Visual BASIC Program 2 3 3

Prerequisites:

Corequisites: None

This course introduces event-driven computer programming using the Visual BASIC programming language. Topics include input/output operations, sequence, selection, iteration, arithmetic operations, arrays, forms, sequential files, and other related topics. Upon completion, students should be able to design, code, test, and debug Visual BASIC language programs.

CSC 248 Adv Internet Program 2 3 3

Prerequisites: CSC 134 or CSC 140 or CSC 141

Corequisites: None

This course covers advanced programming skills required to design Internet applications. Emphasis is placed on programming techniques required to support network applications. Upon completion, students should be able to design, code, debug, and document network-based programming solutions to various real-world problems using an appropriate programming language.

CTC 111 Basic Chemistry I 4 6 7

Prerequisites:

Corequisites: MAT 121

This course introduces the basic principles of chemistry with emphasis on applications to chemical technology. Topics

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include measurement, elements, compounds, moles, solutions, reactions, gases, pH, and basic laboratory tools, techniques, and safety. Upon completion, students should be able to demonstrate an understanding of basic chemical calculations and routine laboratory procedures.

CTC 112 Basic Chemistry II 4 6 7

Prerequisites: CTC 111

Corequisites: None

This course is a continuation of CTC 111 and introduces solubility, element groups, and industrial chemistry tools and procedures. Topics include solubility products, element families, industrial chemical equipment, and basic laboratory tools, techniques, and safety. Upon completion, students should be able to demonstrate an understanding of basic chemical calculations and routine laboratory procedures.

CTC 120 Organic Chemistry I 2 0 2

Prerequisites: CTC 111

Corequisites: None

This course surveys the nomenclature and properties of organic functional groups with emphasis on applications to chemical technology. Topics include aliphatic and aromatic hydrocarbons, alcohols, ethers, aldehydes and ketones, and acids and acid derivatives, including their infrared spectra. Upon completion, students should be able to name and identify example compounds from these functional groups.

CTC 140 Unit Processes 1 10 6

Prerequisites: CTC 120

Corequisites: None

This course introduces a chemical technology "real world" laboratory experience. Topics include distillation, reflux, and extraction; column, TLC, GL, LC, and ion exchange chromatography; and IR, UV, visible, AA, and AE spectroscopy. Upon completion, students should be able to demonstrate competence in the laboratory techniques presented.

CTC 220 Organic Chemistry II 2 6 5

Prerequisites: CTC 120 and CTC 140

Corequisites: None

This course surveys the preparation, reactions, and analysis of organic compounds. Topics include the preparation and reactions of all the organic functional groups, including IR, UV, RI, GC, and LC spectrographic analysis. Upon completion, students should be able to identify organic reaction products and utilize IR, UV, RI, GC, and LC spectroscopy to characterize organic compounds.

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CTC 230 Organic Chemistry III 2 6 5

Prerequisites: CTC 220

Corequisites: None

This course surveys amines, amides, polymers, biochemicals, and advanced spectroscopic and chromatographic techniques. Topics include nitrogen compounds, polymers, stereochemistry, carbohydrates, lipids, amino acids, proteins, enzymes, and nucleic acids and NMR spectroscopy and gas chromatography. Upon completion, students should be able to recognize biologically active compounds, describe their activity, and use specific analytical schemes for their identification.

CTC 240 Industrial Analysis I 2 6 5

Prerequisites: CTC 140

Corequisites: None

This course covers qualitative and quantitative chemical analysis for selected inorganic ions. Emphasis is placed on inorganic qualitative and quantitative analysis methods which utilize titrations, gravimetric analysis, and UV, AA, and AE spectroscopy. Upon completion, students should be able to carry out all analytical schemes presented, including all necessary calculations.

CTC 250 Industrial Analysis II 2 6 5

Prerequisites: CTC 240

Corequisites: None

This course covers quantitative chemical analysis for selected inorganic ions with emphasis on analysis of natural waters. Topics include the sources, utilization, analysis, and treatment of water. Upon completion, students should be able to carry out all analytical schemes presented, including all necessary calculations.

CUL 110 Sanitation & Safety 2 0 2

Prerequisites:

Corequisites: None

This course introduces the basic principles of sanitation and safety and their relationship to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of sanitation and safety procedures in the hospitality industry.

CUL 110A Sanitation & Safety Lab 0 2 1

Prerequisites:

Corequisites: CUL 110

This course is a laboratory to accompany CUL 110. Emphasis is placed on practical experiences that enhance the materials presented in CUL 110. Upon completion, students should be able to demonstrate practical applications of sanitation and safety procedures in the hospitality industry.

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CUL 120 Purchasing

2 0 2

Prerequisites:

Corequisites: None

This course covers purchasing for hotels and restaurants. Emphasis is placed on procurement, yield tests, inventory control, specification, planning, forecasting, market trends, terminology, cost controls, pricing, and foodservice ethics. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product.

CUL 120A Purchasing Lab

0 2 1

Prerequisites:

Corequisites: CUL 120

This course is a laboratory to accompany CUL 120. Emphasis is placed on practical experiences that enhance the materials presented in CUL 120. Upon completion, students should be able to demonstrate practical applications of purchasing within in the hospitality industry.

CUL 125 Hospitality Info Sys

1 2 2

Prerequisites:

Corequisites: None

This course introduces hospitality and food service information systems. Topics include planning, cost controls, forecasting, inventory control, recipe control, production control, and nutritional analysis. Upon completion, students should be able to demonstrate competence in utilizing contemporary information application systems in a hospitality setting.

CUL 135 Food & Beverage Service

2 0 2

Prerequisite

Corequisites: None

This course covers the practical skills and knowledge for effective food and beverage service in a variety of settings. Topics include reservations, greeting and service of guests, styles of service, handling complaints, and sales and merchandising. Upon completion, students should be able to demonstrate competence in human relations and technical skills required in the service of foods and beverages.

CUL 135A Food & Bev Serv Lab

0 2 1

Prerequisites:

Corequisites: CUL 135

This course is a laboratory to accompany CUL 135. Emphasis is placed on practical experiences that enhance the materials presented in CUL 135. Upon completion, students should be able to demonstrate practical applications of skills required in the service of foods and beverages.

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CUL 140 Basic Culinary Skills

2 6 5

Prerequisites:

Corequisites: None

This course introduces the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on recipe conversion, measurements, terminology, knife skills, safe food handling, cooking methods, flavorings, seasonings, stocks/sauces/soups, and other related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the food service industry.

CUL 214 Wine Appreciation

1 2 2

Prerequisites: HRM 225

Corequisites: None

This course provides comprehensive and detailed information about wine from all the major wine producing countries. Emphasis is placed on the history of wine, production characteristics, laws, and purchasing and storing requirements. Upon completion, students should be able to determine what wines compliment various cuisines and particular tastes.

CUL 220 Food Service Spec Ops

1 8 5

Prerequisites:

Corequisites: None

This course covers menu planning principles, food preparation, food procurement, and food management skills needed to provide appealing and profitable food service in special operations. Topics include fast-food cookery, convenience-store food service, supermarkets, delicatessens, and take-out venue. Upon completion, students should be able to plan, organize, and prepare food service items for special operations.

CUL 240 Adv Culinary Skills

1 8 5

Prerequisites: CUL 140

Corequisites: None

This course is a continuation of CUL 140. Emphasis is placed on meat fabrication and butchery; vegetable, starch, and protein cookery; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.

DDF 211 Design Drafting I

2 6 4

Prerequisites: DFT 112

Corequisites: None

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product. This course emphasizes design as it applies to power transmission components.

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DDF 212 Design Drafting II 1 6 4

Prerequisites: DDF 211

Corequisites: None

This course stresses the integration of various drafting and design practices. Emphasis is placed on the creation of an original design. Upon completion, students should be able to apply drafting and design procedures to a design project of their choosing. This course is a unique concentration requirement of the Drafting and Design concentration in the Mechanical Engineering program. This course will emphasize extensive use of CAD 3D drawing and solid modeling in the design process.

DDF 213 Design Drafting III 1 6 4

Prerequisites: DDF 212

Corequisites: None

This course provides an opportunity to produce all the documentation needed to complete a project for the manufacture of a product. Topics include materials, manufacturing processes, analysis, production drawings, calculations, and specifications. Upon completion, students should be able to research and produce all information needed to complete a project for manufacture. This course is a unique concentration requirement of the Drafting and Design concentration in the Mechanical Engineering program.

DDF 214 Tool Design 2 4 4

Prerequisites: DDF 212

Corequisites: None

This course introduces the principles of tool design. Topics including gaging, die work, and cost analysis using available catalogs and studies using manufacturing processes. Upon completion, students should be able to use catalogs to identify vendors and prepare working drawings for tooling.

DEN 101 Preclinical Procedures 4 6 7 0

Prerequisites:

Corequisites: DEN 111

This course provides instruction in procedures for the clinical dental assistant as specified by the North Carolina Dental Practice Act. Emphasis is placed on orientation to the profession, infection control techniques, instruments, related expanded functions, and diagnostic, operative, and specialty procedures. Upon completion, students should be able to demonstrate proficiency in clinical dental assisting procedures. This is a diploma-level course.

DEN 102 Dental Materials 3 4 5 0

Prerequisites:

Corequisites: DEN 101

This course provides instruction in identification, properties, evaluation of quality, principles, and procedures related to

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manipulation and storage of operative and specialty dental materials. Emphasis is placed on the understanding and safe application of materials used in the dental office and laboratory. Upon completion, students should be able to demonstrate proficiency in the laboratory and clinical application of routinely used dental materials. This is a diploma-level course.

DEN 103 Dental Sciences 2 0 2 0

Prerequisites:

Corequisites: None

This course is a study of oral pathology, pharmacology, and dental office emergencies. Topics include oral pathological conditions, dental therapeutics, and management of emergency situations. Upon completion, students should be able to recognize abnormal oral conditions, identify classifications, describe actions and effects of commonly prescribed drugs, and respond to medical emergencies. This is a diploma-level course.

DEN 104 Dental Health Education 2 2 3 0

Prerequisites: DEN 101 and DEN 111

Corequisites: DEN 106

This course covers the study of preventive dentistry to prepare dental assisting students for the role of dental health educator. Topics include etiology of dental diseases, preventive procedures, and patient education theory and practice. Upon completion, students should be able to demonstrate proficiency in patient counseling and oral health instruction in private practice or public health settings. This is a diploma-level course.

DEN 105 Practice Management 2 0 2 0

Prerequisites:

Corequisites: None

This course provides a study of principles and procedures related to management of the dental practice. Emphasis is placed on maintaining clinical and financial records, patient scheduling, and supply and inventory control. Upon completion, students should be able to demonstrate fundamental skills in dental practice management. This is a diploma-level course.

DEN 106 Clinical Practice I 1 0 5 12

Prerequisites: DEN 101 and DEN 111

Corequisites: DEN 102, DEN 104, and DEN 112

This course is designed to provide experience assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to utilize classroom theory and laboratory and clinical skills in a dental setting. This is a diploma-level course.

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DEN 107 Clinical Practice II 1 0 5 12

Prerequisites: DEN 106

Corequisites: None

This course is designed to increase the level of proficiency in assisting in a clinical setting. Emphasis is placed on the application of principles and procedures of four-handed dentistry and laboratory and clinical support functions. Upon completion, students should be able to combine theoretical and ethical principles necessary to perform entry-level skills including functions delegable to a DA II. This is a diploma-level course.

DEN 110 Orofacial Anatomy 2 2 3 0

Prerequisites:

Corequisites: None

This course introduces the structures of the head, neck, and oral cavity. Topics include tooth morphology, head and neck anatomy, histology, and embryology. Upon completion, students should be able to relate the identification of normal structures and development to the practice of dental assisting and dental hygiene.

DEN 111 Infection/Hazard Control 2 0 2 0

Prerequisites:

Corequisites: None

This course introduces the infection and hazard control procedures necessary for the safe practice of dentistry. Topics include microbiology, practical infection control, sterilization and monitoring, chemical disinfectants, aseptic technique, infectious diseases, OSHA standards, and applicable North Carolina laws. Upon completion, students should be able to understand infectious diseases, disease transmission, infection control procedures, biohazard management, OSHA standards, and applicable North Carolina laws.

DEN 112 Dental Radiography 2 3 3 0

Prerequisites: Enrollment in the Dental Hygiene or Dental Assisting programs

Corequisites: DEN 100 or DEN 110 and DEN 111

This course provides a comprehensive view of the principles and procedures of radiology as they apply to dentistry. Topics include techniques in exposing, processing, and evaluating radiographs, as well as radiation safety, quality assurance, and legal issues. Upon completion, students should be able to demonstrate proficiency in the production of diagnostically acceptable radiographs using appropriate safety precautions.

DEN 110 Architectural Graphics 0 6 2

Prerequisites:

Corequisites: None

This course introduces basic drafting skills and techniques. Emphasis is placed on the use of drafting equipment, lettering,

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dimensioning, elevations, sections, construction details, and actual fixture sizes as related to interior design situations. Upon completion, students should be able to complete working drawings skillfully utilizing principles of drafting.

DES 111 Creative Problem Solving 2 0 2

Prerequisites:

Corequisites: None

This course is designed to improve conceptual abilities as applied to problems involved with creating practical furniture designs. Emphasis is placed on the awareness of creative thinking techniques that are involved with producing a workable design in an innovative fashion. Upon completion, students should be able to apply creative thinking techniques to find innovative solutions to furniture problems.

DES 120 CAD for Interior Design 0 6 2

Prerequisites: DES 110

Corequisites: None

This course introduces basic computer-aided design and drafting skills and techniques within interior design applications. Emphasis is placed on the most common computer commands used in architectural drafting and design to draw, edit, manipulate layers, and create reusable drawings. Upon completion, students should be able to use specific computer applications to complete drawings and plot/print.

DES 125 Graphic Presentation I 0 6 2

Prerequisites:

Corequisites: None

This course introduces graphic presentation techniques for communicating ideas. Topics include drawing, perspective drawing, and wet and dry media. Upon completion, students should be able to produce a pictorial presentation.

DES 135 Prin & Elem of Design I 2 4 4

Prerequisites:

Corequisites: None

This course introduces the basic concepts and terminology of design as they relate to the design profession. Topics include line, pattern, space, mass, shape, texture, color, unity, variety, rhythm, emphasis, balance, proportion, scale, and function. Upon completion, students should be able to demonstrate an understanding of the principles covered through hands-on application.

DES 136 Prin & Elem of Design II 2 4 4

Prerequisites: DES 135

Corequisites: None

This course provides continued study of design principles introduced in DES 135. Emphasis is placed on color theory, pattern, and texture as used in interiors as well as an investiga-

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tion of the psychology of color. Upon completion, students should be able to originate a color program for interiors.

DES 210 Bus Prac/Interior Design 2 0 2

Prerequisites:

Corequisites: None

This course introduces contemporary business practices for interior design. Topics include employment skills, business formations, professional associations, preparation of professional contracts and correspondence, and means of compensation. Upon completion, students should be able to describe the basic business formations and professional associations and compose effective letters and contracts.

DES 220 Intro to Interior Design 1 6 3

Prerequisites: DES 135 and ARC 111 or DES 110 or DFT 115

Corequisites: None

This course covers the basic principles of design as they relate specifically to interior design, furniture arrangement, wall composition, color, furnishings, collages, and illustration. Emphasis is placed on spatial relationships, craftsmanship, and visual presentation techniques. Upon completion, students should be able to arrange furnishings in rooms for various purposes, select furnishings and colors, and illustrate ideas graphically.

DES 225 Textiles/Fabrics 2 2 3

Prerequisites:

Corequisites: None

This course includes the study of woven and non-woven fabrics for interiors. Topics include characteristics of fibers, yarns, weaving, felting, and knitting; processing of leather; and adorning and finishing of interior fabrics. Upon completion, students should be able to recognize and use correct terminology for upholstery, window treatments, and rugs/carpets with regard to flammability, performance, and durability.

DES 230 Residential Design I 1 6 3

Prerequisites:

Corequisites: None

This course includes principles of interior design for various residential design solutions. Emphasis is placed on visual presentation and selection of appropriate styles to meet specifications. Upon completion, students should be able to complete scaled floorplans, elevations, specifications, colorschemes and fabrics, and finishes and furniture selection.

DES 231 Residential Design II 1 6 3

Prerequisites: DES 230

Corequisites: None

This course provides advanced projects with a client profile that utilizes the skills developed in DES 230. Emphasis is

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placed on a total concept and the presentation of appropriate and creative design solutions. Upon completion, students should be able to complete a detailed floorplan, space planning, furniture plan, specifications, program schedules, finishes, and detailed window treatments.

DES 235 Products 2 2 3

Prerequisites:

Corequisites: None

This course provides an overview of interior finishing materials and the selection of quality upholstery and case goods. Topics include hard and resilient floor coverings; wall coverings and finishes; ceilings, moldings, and furniture construction techniques; and other interior components. Upon completion, students should be able to recognize and use correct terminology, select appropriate materials for interior surfaces, and choose furniture based on sound construction.

DES 240 Non-Residential Design I 1 6 3

Prerequisites: DES 220

Corequisites: None

This course introduces commercial/contract design including retail, office, institutional, restaurant, and hospitality design. Emphasis is placed on ADA requirements, building codes and standards, space planning, and selection of appropriate materials for non-residential interiors. Upon completion, students should be able to analyze and design introductory non-residential projects using graphic presentation concepts.

DES 241 Non-Residential Design II 1 6 3

Prerequisites: DES 240

Corequisites: None

This course provides an in-depth study of non-residential design exploring more comprehensive design solutions such as health care facilities, furniture gallery design, and large office complexes. Emphasis is placed on design of commercial interiors and suitability of materials to meet ADA requirements, codes, and standards. Upon completion, students should be able to design non-residential spaces meeting ADA requirements and select furniture, materials, fabrics, and accessories meeting codes and flammability standards.

DES 245 Sales & Mkt/Int Design 2 0 2

Prerequisites:

Corequisites: None

This course introduces retail/wholesale sales and marketing concepts, product distribution, and terminology for the interior design profession. Topics include current retail/wholesale marketing techniques, sales terminology, acceptable business practices, and basic retail/wholesale computations. Upon completion, students should be able to demonstrate knowledge of specific design marketing and sales organizations and techniques and compute basic mark-ups and mark-downs.

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DES 255 History/Int & Furn I 3 0 3

Prerequisites:

Corequisites: None

This course covers interiors, exteriors, and furnishings from ancient Egypt through French Neo-Classicism. Emphasis is placed on vocabulary, chronology, and style recognition. Upon completion, students should be able to classify and date interior and exterior architecture and furnishings and be conversant with pertinent vocabulary.

DES 280 Codes & Stand/Int Des 3 0 3

Prerequisites:

Corequisites: None

This course introduces institutional and residential building codes as they relate to interior design. Topics include state and federal codes and standards related to physically disadvantaged access, fire codes, space allocation codes, and bathroom facility codes. Upon completion, students should be able to research and interpret state and federal building codes.

DES 285 Capstone/Interior Design 2 6 4

Prerequisites: DES 210, DES 230, and DES 240

Corequisites: None

This course provides additional studio time to investigate areas of special interest, upgrade weaknesses, and/or capitalize on strengths. Topics include a broad range of options, both residential and non-residential, combining individual research and instructional guidance. Upon completion, students should be able to complete the graphics, client folder, and all schedules for a professional project.

DFT 100 Marine Drafting 1 2 2

Prerequisites:

Corequisites: BTB 101

This course introduces blueprint reading, sketching, marine drafting equipment, and the lines plan. Topics include utilization of mechanical drafting tools, blueprint lines, pictorial sketching, blueprint reading, and manually drawing plans for boats from tables of offsets. Upon completion, students should be able to create pictorial sketches, make materials lists from blueprints, expand transoms, and demonstrate an understanding of lines plans.

DFT 111 Technical Drafting I 2 6 4

Prerequisites:

Corequisites: None

This course introduces basic drafting skills, equipment, and applications. Topics include sketching, measurements, lettering, dimensioning, geometric construction, orthographic projections and pictorial drawings, sections, and auxiliary views. Upon completion, students should be able to understand and apply basic drawing principles and practices.

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DFT 112 Technical Drafting II 2 6 4

Prerequisites: DFT 111

Corequisites: None

This course provides for advanced drafting practices and procedures. Topics include detailed working drawings, hardware, fits and tolerances, assembly and sub-assembly, geometric dimensioning and tolerancing, intersections, and developments. Upon completion, students should be able to produce detailed working drawings.

DFT 151 CAD I 2 3 3

Prerequisites:

Corequisites: None

This course introduces CAD software as a drawing tool. Topics include drawing, editing, file management, and plotting. Upon completion, students should be able to produce and plot a CAD drawing.

DFT 152 CAD II 2 3 3

Prerequisites: DFT 151

Corequisites: None

This course is a continuation of DFT 151. Topics include advanced two-dimensional, three-dimensional, and solid modeling and extended CAD applications. Upon completion, students should be able to generate and manage CAD drawings and models to produce engineering documents.

DFT 211 Gears, Cams, & Pulleys 1 3 2

Prerequisites: DFT 111 and MAT 121

Corequisites: None

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

DFT 221 Electrical Drafting 2 6 4

Prerequisites: DFT 111 and DFT 151

Corequisites: None

This course covers the practices used for making electrical drawings. Emphasis is placed on symbol identification and various types of electrical diagrams. Upon completion, students should be able to properly utilize electrical symbols in the construction of various electrical diagrams. Symbols for piping and welding will also be covered.

DIE 110 Diesel Engines 3 9 6

Prerequisites:

Corequisites: None

This course introduces theory, design, terminology, and operating adjustments for diesel engines. Emphasis is placed on safety, theory of operation, inspection, measuring, and re-

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building diesel engines according to factory specifications. Upon completion, students should be able to measure, diagnose problems, and repair diesel engines.

DIE 112 Diesel Electrical Sys 3 6 5

Prerequisites:

Corequisites: None

This course introduces electrical theory and applications as they relate to diesel powered equipment. Topics include lighting, accessories, safety, starting, charging, instrumentation, and gauges. Upon completion, students should be able to follow schematics to identify, repair, and test electrical circuits and components.

DIE 115 Electronic Engines 2 3 3

Prerequisites:

Corequisites: None

This course introduces the principles of electronically controlled diesel engines. Emphasis is placed on testing and adjusting diesel engines in accordance with manufacturers' specifications. Upon completion, students should be able to diagnose, test, and calibrate electronically controlled diesel engines.

DIE 121 Marine Engines 2 6 4

Prerequisites:

Corequisites: None

This course covers two- and four-cycle diesel engines that are used for marine vessel propulsion. Emphasis is placed on construction, design, cooling systems, lubrication systems, and air-intake systems. Upon completion, students should be able to test, troubleshoot, diagnose, and repair marine engine systems. This course is a unique concentration requirement of the Marine Systems concentration in the Medium/Heavy Duty Vehicle Systems Technology program.

DIE 125 Preventive Maintenance 1 3 2

Prerequisites:

Corequisites: None

This course introduces preventive maintenance practices used on medium and heavy duty vehicles and rolling assemblies. Topics include preventive maintenance schedules, services, DOT rules and regulations, and roadability. Upon completion, students should be able to set up and follow a preventive maintenance schedule as directed by manufacturers.

DIE 134 Mechanical Fuel Injection 2 2 3

Prerequisites:

Corequisites: None

This course introduces the principles of mechanical fuel injection. Emphasis is placed on test equipment, component func-

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tions, and theory. Upon completion, students should be able to diagnose, service, and repair fuel systems and governors.

DIE 145 Marine Electricity 2 6 4

Prerequisites:

Corequisites: None

This course covers basic DC and AC electrical systems used in marine electrical systems. Topics include installation and wiring of various lighting, electrical instruments, and service generators aboard vessels. Upon completion, students should be able to test, service, and repair marine electrical systems. This course is a unique concentration requirement of the Marine Systems concentration in the Medium/Heavy Duty Vehicle Systems Technology program.

DIE 147 Marine Power Trains 2 6 4

Prerequisites:

Corequisites: None

This course covers the principles and function of marine power trains. Emphasis is placed on marine gears, drive lines, gear reduction, and installation aboard vessels. Upon completion, students should be able to test, service, and troubleshoot marine power trains. This course is a unique concentration requirement of the Marine Systems concentration in the Medium/Heavy Duty Vehicle Systems Technology program.

DRA 111 Theatre Appreciation 3 0 3

Prerequisites:

Corequisites: None

This course provides a study of the art, craft, and business of the theatre. Emphasis is placed on the audience's appreciation of the work of the playwright, director, actor, designer, producer, and critic. Upon completion, students should be able to demonstrate a vocabulary of theatre terms and to recognize the contributions of various theatre artists.

DRA 211 Theatre History I 3 0 3

Prerequisites:

Corequisites: None

This course covers the development of theatre from its origin to the closing of the British theatre in 1642. Topics include the history, aesthetics, and representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.

DRA 212 Theatre History II 3 0 3

Prerequisites:

Corequisites: None

This course covers the development of theatre from 1660 through the diverse influences which shaped the theatre of the twentieth century. Topics include the history, aesthetics, and

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representative dramatic literature of the period. Upon completion, students should be able to trace the evolution of theatre and recognize the styles and types of world drama.

ECO 151 Survey of Economics 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces basic concepts of micro- and macroeconomics. Topics include supply and demand, optimizing economic behavior, prices and wages, money, interest rates, banking system, unemployment, inflation, taxes, government spending, and international trade. Upon completion, students should be able to explain alternative solutions for economic problems faced by private and government sectors.

ECO 251 Prin of Microeconomics 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces economic analysis of individual, business, and industry choices in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives.

ECO 252 Prin of Macroeconomics 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals.

EDU 111 Early Childhood Cred I 2 0 2

Prerequisites:

Corequisites: None

This course introduces early childhood education and the role of the teacher in environments that encourage exploration and learning. Topics include professionalism, child growth and development, individuality, family, and culture. Upon completion, students should be able to identify and demonstrate knowledge of professional roles, major areas of child growth and development, and diverse families.

EDU 112 Early Childhood Cred II 2 0 2

Prerequisites:

Corequisites: None

This course introduces developmentally appropriate practices, positive guidance, and standards of health, safety, and nutrition. Topics include the learning environment, planning developmentally appropriate activities, positive guidance techniques, and health, safety, and nutrition standards. Upon completion, students should be able to demonstrate developmentally appropriate activities and positive guidance techniques and describe health/sanitation/nutrition practices that promote healthy environments for children.

EDU 113 Family/Early Child Cred 2 0 2

Prerequisites:

Corequisites: None

This course covers business/professional practices for family early childhood providers, developmentally appropriate practices, positive guidance, and methods of providing a safe and healthy environment. Topics include developmentally appropriate practices; health, safety and nutrition; and business and professionalism. Upon completion, students should be able to develop a handbook of policies, procedures, and practices for a family child care home.

EDU 116 Intro to Education 3 2 4

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces the American educational system and the teaching profession. Topics include historical and philosophical foundations of education, contemporary educational trends and issues, curriculum development, and observation and participation in public school classrooms. Upon completion, students should be able to relate classroom observations to the roles of teachers and schools and the process of teacher education.

EDU 131 Child, Family, & Comm 3 0 3

Prerequisites:

Corequisites: None

This course covers the relationships between the families, programs for children/schools, and the community. Emphasis is placed on establishing and maintaining positive collaborative relationships with families and community resources. Upon completion, students should be able to demonstrate strategies for effectively working with diverse families and identifying and utilizing community resources.

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EDU 146 Child Guidance 3 0 3

Prerequisites:

Corequisites: None

This course introduces practical principles and techniques for developmentally appropriate guidance. Emphasis is placed on encouraging self-esteem and cultural awareness, effective communication skills, and direct and indirect guidance techniques and strategies. Upon completion, students should be able to demonstrate strategies which encourage positive social interactions, promote conflict resolution, and develop self-control, self-motivation, and self-esteem in children.

EDU 151 Creative Activities 3 0 3

Prerequisites:

Corequisites: None

This course covers creative learning environments, planning and implementing developmentally appropriate experiences, and developing appropriate teaching materials for the classroom. Emphasis is placed on creative activities for children in art, music, movement and physical skills, and dramatics. Upon completion, students should be able to select and evaluate developmentally appropriate learning materials and activities.

EDU 151A Creative Activities Lab 0 2 1

Prerequisites:

Corequisites: EDU 151

This course provides a laboratory component to complement EDU 151. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate creative activities.

EDU 153 Health, Safety, & Nutrit 3 0 3

Prerequisites:

Corequisites: None

This course focuses on promoting and maintaining the health and well-being of children. Topics include health and nutritional needs, safe and healthy environments, and recognition and reporting of child abuse and neglect. Upon completion, students should be able to set up and monitor safe indoor and outdoor environments and implement a nutrition education program.

EDU 185 Cognitive & Lang Act 3 0 3

Prerequisites:

Corequisites: None

This course covers methods of developing cognitive and language/communication skills in children. Emphasis is placed on planning the basic components of language and cognitive processes in developing curriculum activities. Upon completion, students should be able to identify, plan, select materials

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and equipment, and implement and evaluate developmentally appropriate curriculum activities.

EDU 185A Cognitive & Lang Act Lab 0 2 1

Prerequisites:

Corequisites: EDU 185

This course provides a laboratory component to complement EDU 185. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate cognitive language activities.

EDU 188 Issues in Early Child Ed 2 0 2

Prerequisites:

Corequisites: None

This course covers topics and issues in early childhood education. Emphasis is placed on current advocacy issues, emerging technology, professional growth experiences, and other related topics. Upon completion, students should be able to list, discuss, and explain current topics and issues in early childhood education.

EDU 221 Children with Sp Needs 3 0 3

Prerequisites: EDU 144 and EDU 145 or PSY 244 and PSY 245

Corequisites: None

This course introduces working with children with special needs. Emphasis is placed on the characteristics and assessment of children and strategies for adapting the home and classroom environment. Upon completion, students should be able to recognize atypical development, make appropriate referrals, and work collaboratively to plan, implement, and evaluate inclusion strategies.

EDU 234 Infants, Toddlers, & Twos 3 0 3

Prerequisites:

Corequisites: None

This course covers the skills needed to effectively implement group care for infants, toddlers, and two-year olds. Emphasis is placed on child development and developmentally appropriate practices. Upon completion, students should be able to identify, plan, select materials and equipment, and implement and evaluate a developmentally appropriate curriculum.

EDU 251 Exploration Activities 3 0 3

Prerequisites:

Corequisites: None

This course covers discovery experiences in science, math, and social studies. Emphasis is placed on developing concepts for each area and encouraging young children to explore, dis-

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cover, and construct concepts. Upon completion, students should be able to discuss the discovery approach to teaching, explain major concepts in each area, and plan appropriate experiences for children.

EDU 251A Exploration Act Lab 0 2 1

Prerequisites:

Corequisites: EDU 251

This course provides a laboratory component to complement EDU 251. Emphasis is placed on practical experiences that enhance concepts introduced in the classroom. Upon completion, students should be able to demonstrate a practical understanding of the development and implementation of appropriate science, math, and social studies activities for children.

EDU 259 Curriculum Planning 3 0 3

Prerequisites: EDU 112, EDU 113, or EDU 119

Corequisites: None

This course covers early childhood curriculum planning. Topics include philosophy, curriculum, indoor and outdoor environmental design, scheduling, observation and assessment, and instructional planning and evaluation. Upon completion, students should be able to assess children and curriculum; plan for daily, weekly, and long-range instruction; and design environments with appropriate equipment and supplies.

EDU 261 Early Childhood Admin I 2 0 2

Prerequisites:

Corequisites: None

This course covers the policies, procedures, and responsibilities for the management of early childhood education programs. Topics include implementation of goals, principles of supervision, budgeting and financial management, and meeting the standards for a NC Child Day Care license. Upon completion, students should be able to develop program goals, explain licensing standards, determine budgeting needs, and describe effective methods of personnel supervision.

EGR 131 Intro Electronics Tech 1 2 2

Prerequisites:

Corequisites: None

This course introduces the basic skills required for electrical/electronics technicians. Topics include soldering/desoldering, safety practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving, and use of hand tools. Upon completion, students should be able to solder/desolder, operate test equipment, apply problem-solving techniques, and use a scientific calculator.

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EGR 285 Design Project 0 4 2

Prerequisites:

Corequisites: None

This course provides the opportunity to design and construct an instructor-approved project using previously acquired skills. Emphasis is placed on selection, proposal, design, construction, testing, and documentation of the approved project. Upon completion, students should be able to present and demonstrate operational projects.

ELC 111 Intro to Electricity 2 2 3

Prerequisites:

Corequisites: None

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronic majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

ELC 112 DC/AC Electricity 3 6 5

Prerequisites:

Corequisites: None

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

ELC 113 Basic Wiring I 2 6 4

Prerequisites:

Corequisites: None

This course introduces the care/usage of tools and materials used in electrical installations and the requirements of the National Electrical Code. Topics include NEC, electrical safety, and electrical blueprint reading; planning, layout; and installation of electrical distribution equipment; lighting; overcurrent protection; conductors; branch circuits; and conduits. Upon completion, students should be able to properly install conduits, wiring, and electrical distribution equipment associated with basic electrical installations.

ELC 114 Basic Wiring II 2 6 4

Prerequisites: ELC 113

Corequisites: None

This course provides additional instruction in the application of electrical tools, materials, and test equipment associated with electrical installations. Topics include the NEC; safety; electrical blueprints; planning, layout, and installation of equipment and conduits; and wiring devices such as panels and

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overcurrent devices. Upon completion, students should be able to properly install equipment and conduit associated with electrical installations.

ELC 115 Industrial Wiring 2 6 4

Prerequisites: ELC 113

Corequisites: None

This course covers layout, planning, and installation of wiring systems in industrial facilities. Emphasis is placed on industrial wiring methods and materials. Upon completion, students should be able to install industrial systems and equipment.

ELC 117 Motors and Controls 2 6 4

Prerequisites: ELC 112 or ELC 131

Corequisites: None

This course introduces the fundamental concepts of motors and motor controls. Topics include ladder diagrams, pilot devices, contactors, motor starters, motors, and other control devices. Upon completion, students should be able to properly select, connect, and troubleshoot motors and control circuits.

ELC 118 National Electrical Code 1 2 2

Prerequisites:

Corequisites: None

This course covers the use of the current National Electrical Code. Topics include the NEC history, wiring methods, overcurrent protection, materials, and other related topics. Upon completion, students should be able to effectively use the NEC.

ELC 119 NEC Calculations 1 2 2

Prerequisites:

Corequisites: None

This course covers branch circuit, feeder, and service calculations. Emphasis is placed on sections of the National Electrical Code related to calculations. Upon completion, students should be able to use appropriate code sections to size wire, conduit, and overcurrent devices for branch circuits, feeders, and service.

ELC 125 Diagrams & Schematics 1 2 2

Prerequisites:

Corequisites: None

This course covers the interpretation of electrical diagrams, schematics, and drawings common to electrical applications. Emphasis is placed on reading and interpreting electrical diagrams and schematics. Upon completion, students should be able to read and interpret electrical diagrams and schematics.

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ELC 128 Intro to PLC 2 3 3

Prerequisites:

Corequisites: None

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLCs and create simple programs.

ELC 131 DC/AC Circuit Analysis 4 3 5

Prerequisites:

Corequisites: MAT 121

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation software, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

ELC 135 Electrical Machines I 2 2 3

Prerequisites: ELC 112, ELC 131, or ELC 140

Corequisites: None

This course covers magnetic circuits, transformers, DC/AC generators, and a review of the three-phase circuit fundamentals including power factor. Topics include magnetic terms and calculations, transformer calculations based on primary or secondary equivalent circuits, and generator regulation and efficiency calculations. Upon completion, students should be able to perform regulation and efficiency calculations for DC/AC single- and three-phase transformer and generator circuits. In addition the course represents a continuation of AC including motors, phasors, complex number and circuit response characteristics.

ELC 228 PLC Applications 2 6 4

Prerequisites: ELC 128

Corequisites: None

This course continues the study of the programming and applications of programmable logic controllers. Emphasis is placed on advanced programming, networking, advanced I/O modules, reading and interpreting error codes, and troubleshooting. Upon completion, students should be able to program and troubleshoot programmable logic controllers.

ELC 229 Applications Project 1 3 2

Prerequisites: ELC 112, ELC 113, or ELC 140

Corequisites: None

This course provides an individual and/or integrated team approach to a practical project as approved by the instructor.

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Topics include project selection and planning, implementation and testing, and a final presentation. Upon completion, students should be able to plan and implement an applications-oriented project.

ELN 114 Marine Electronics 1 2 2

Prerequisites:

Corequisites: None

This course introduces a wide variety of marine electronics that are used in the marine research industry. Topics include basic theory, components, circuits, testing, troubleshooting, and installation of AC and DC marine electronics. Upon completion, students should be able to install, troubleshoot, and operate basic marine electronics used in the marine research industry.

ELN 131 Electronic Devices 3 3 4

Prerequisites: ELC 112, ELC 131, or ELC 140

Corequisites: None

This course includes semiconductor-based devices such as diodes, bipolar transistors, FETs, thyristors, and related components. Emphasis is placed on analysis, selection, biasing, and applications in power supplies, small signal amplifiers, and switching and control circuits. Upon completion, students should be able to construct, analyze, verify, and troubleshoot discrete component circuits using appropriate techniques and test equipment.

ELN 132 Linear IC Applications 3 3 4

Prerequisites: ELN 131

Corequisites: None

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, differential amplifiers, instrumentation amplifiers, waveform generators, active filters, PLLs, and IC voltage regulators. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

ELN 133 Digital Electronics 3 3 4

Prerequisites: ELN 111, ELC 112, ELC 131, or ELC 140

Corequisites: None

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, MSI and LSI circuits, AC/DC converters, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

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ELN 229 Industrial Electronics 2 4 4

Prerequisites: ELC 112, ELC 131, or ELC 140

Corequisites: None

This course covers semiconductor devices used in industrial applications. Topics include the basic theory, application, and operating characteristics of semiconductor devices (filters, rectifiers, FET, SCR, Diac, Triac, Op-amps, etc). Upon completion, students should be able to install and/or troubleshoot these devices for proper operation in an industrial electronic circuit.

ELN 231 Industrial Controls 2 3 3

Prerequisites: ELC 112, or ELC 131, or ELC 140

Corequisites: None

This course introduces the fundamental concepts of solid-state control of rotating machinery and associated peripheral devices. Topics include rotating machine theory, ladder logic, electromechanical and solid state relays, motor controls, pilot devices, three-phase power systems, and other related topics. Upon completion, students should be able to interpret ladder diagrams and demonstrate an understanding of electromechanical and electronic control of rotating machinery.

ELN 232 Intro to Microprocessors 3 3 4

Prerequisites: ELN 133

Corequisites: None

This course introduces microprocessor architecture and micro-computer systems including memory and input/output interfacing. Topics include assembly language programming, bus architecture, bus cycle types, I/O systems, memory systems, interrupts, and other related topics. Upon completion, students should be able to interpret, analyze, verify, and troubleshoot fundamental microprocessor circuits and programs using appropriate techniques and test equipment. In addition, microprocessor interfacing techniques using C and assembly language programming will be examined.

ELN 234 Communication Systems 3 3 4

Prerequisites: ELN 132 or ELN 140

Corequisites: None

This course introduces the fundamentals of electronic communication systems. Topics include the frequency spectrum, electrical noise, modulation techniques, characteristics of transmitters and receivers, and digital communications. Upon completion, students should be able to interpret analog and digital communication circuit diagrams, analyze transmitter and receiver circuits, and use appropriate communication test equipment.

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ELN 235 Data Communication System 3 3 4

Prerequisites: ELN 133

Corequisites: None

This course covers data communication systems and the transmission of digital information from source to destination. Topics include data transmission systems, serial interfaces and modems, protocols, networks, and other related topics. Upon completion, students should be able to demonstrate knowledge of the concepts associated with data communication systems.

ELN 236 Fiber Optics and Lasers 3 2 4

Prerequisites: ELN 234

Corequisites: None

This course introduces the fundamentals of fiber optics and lasers. Topics include the transmission of light; characteristics of fiber optic and lasers and their systems; fiber optic production; types of lasers; and laser safety. Upon completion, students should be able to understand fiber optic communications and basic laser fundamentals. In addition, opto-electronic devices and optical transmitters and receivers will be investigated and analyzed.

ELN 237 Local Area Networks 2 3 3

Prerequisites: CIS 110 or CIS 111

Corequisites: None

This course introduces the fundamentals of local area networks and their operation in business and computer environments. Topics include the characteristics of network topologies, system hardware (repeaters, bridges, routers, gateways), system configuration, and installation and administration of the LAN. Upon completion, students should be able to install, maintain, and manage a local area network.

ELN 238 Advanced LANs 2 3 3

Prerequisites: ELN 237

Corequisites: None

This course covers advanced concepts, tools, and techniques associated with servers, workstations, and overall local area network performance. Topics include network security and configuration, system performance and optimization, communication protocols and packet formats, troubleshooting techniques, multi-platform integration, and other related topics. Upon completion, students should be able to use advanced techniques to install, manage, and troubleshoot networks and optimize server and workstation performance.

ELN 275 Troubleshooting 1 2 2

Prerequisites:

Corequisites: ELN 133 or ELN 141

This course covers techniques of analyzing and repairing failures in electronic equipment. Topics include safety, signal tracing, use of service manuals, and specific troubleshooting

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methods for analog, digital, and other electronics-based circuits and systems. Upon completion, students should be able to logically diagnose and isolate faults and perform necessary repairs to meet manufacturers' specifications.

ENG 075 Reading and Language Essentials

5 0 5

Prerequisites: English or Reading Placement Test Score 23-34

Corequisites: None

This course uses whole language to develop proficiency in basic reading and writing. Emphasis is placed on increasing vocabulary, developing comprehension skills, and improving grammar. Upon completion, students should be able to understand and create grammatically and syntactically correct sentences.

ENG 085 Reading and Writing Foundations

5 0 5

Prerequisites: ENG 075 or English or Reading Placement Score 35-38

Corequisites: None

This course uses whole language to develop proficiency in reading and writing for college. Emphasis is placed on applying analytical and critical reading skills to a variety of texts and on introducing the writing process. Upon completion, students should be able to recognize and use various patterns of text organization and compose effective paragraphs.

ENG 095 Reading and Comp Strategies

5 0 5

Prerequisites: ENG 085 or English or Reading Placement Score 39-41

Corequisites: None

This course uses whole language to strengthen proficiency in reading and writing for college. Emphasis is placed on applying critical reading skills to narrative and expository texts and on using the writing process. Upon completion, students should be able to comprehend, analyze, and evaluate college texts and to compose essays in preparation for college writing.

ENG 101 Applied Communications 3 0 3

Prerequisites:

Corequisites: None

This course is designed to enhance reading and writing skills for the workplace. Emphasis is placed on technical reading, job-related vocabulary, sentence writing, punctuation, and spelling. Upon completion, students should be able to identify main ideas with supporting details and produce mechanically correct short writings appropriate to the workplace. This course meets requirements for diploma programs.

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ENG 102 Applied Communicat II 3 0 3

Prerequisites:
Corequisites: None

This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and reports and developing interpersonal communication skills with employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral communications. This course meets requirements for diploma programs.

ENG 111 Expository Writing 3 0 3

Prerequisites: ENG 095 or English and Reading Placement score 42 or higher.
Corequisites: None

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course may be taught in a computer lab.

ENG 112 Argument-Base Research 3 0 3

Prerequisites: ENG 111
Corequisites: None

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on analyzing data and incorporating research findings into documented argumentative essays and research projects. Upon completion, students should be able to summarize, paraphrase, interpret, and synthesize information from primary and secondary sources using standard research format and style.

ENG 114 Professional Research and Reporting 3 0 3

Prerequisites: ENG 111
Corequisites: None

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations.

Class Lab Credit Clinical

ENG 115 Oral Communication 3 0 3

Prerequisites:
Corequisites: None

This course introduces the basic principles of oral communication in both small group and public settings. Emphasis is placed on the components of the communication process, group decision-making, and public address. Upon completion, students should be able to demonstrate the principles of effective oral communication in small group and public settings.

ENG 125 Creative Writing I 3 0 3

Prerequisites: ENG 111
Corequisites: ENG 112, or ENG 114

This course is designed to provide students with the opportunity to practice the art of creative writing. Emphasis is placed on writing, fiction, poetry, and sketches. Upon completion, students should be able to craft and critique their own writing and critique the writing of others.

ENG 126 Creative Writing II 3 0 3

Prerequisites: ENG 125
Corequisites: None

This course is designed as a workshop approach for advancing imaginative and literary skills. Emphasis is placed on the discussion of style, techniques, and challenges for first publications. Upon completion, students should be able to submit a piece of their writing for publication.

ENG 131 Intro to Literature 3 0 3

Prerequisites: ENG 111
Corequisites: ENG 112 or ENG 114

This course introduces the principal genres of literature. Emphasis is placed on literary terminology, devices, structure, and interpretation. Upon completion, students should be able to analyze and respond to literature.

ENG 231 American Literature I 3 0 3

Prerequisites: ENG 112, or ENG 114
Corequisites: None

This course provides a survey of selected works in early American literature from the beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical, and cultural contexts.

ENG 232 American Literature II 3 0 3

Prerequisites: ENG 112 or ENG 114
Corequisites: None

This course provides a survey of selected works in early American literature from 1865 to the present. Emphasis is

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placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 241 British Literature I 3 0 3

Prerequisites: ENG 112 or ENG 114

Corequisites: None

This course provides a survey of selected works in British literature from the beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 242 British Literature II 3 0 3

Prerequisites: ENG 112 or ENG 114

Corequisites: None

This course provides a survey of selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts.

ENG 251 West World Literature I 3 0 3

Prerequisites: ENG 112 or ENG 114

Corequisites: None

This course provides a survey of selected European works from the Classical period through the Renaissance. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 252 West World Literature II 3 0 3

Prerequisites: ENG 112 or ENG 114

Corequisites: None

This course provides a survey of selected European works from the Neoclassical period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 261 World Literature I 3 0 3

Prerequisites: ENG 112 or ENG 114

Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from their literary begin-

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nings through the seventeenth century. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

ENG 262 World Literature II 3 0 3

Prerequisites: ENG 112 or ENG 114

Corequisites: None

This course introduces selected works from the Pacific, Asia, Africa, Europe, and the Americas from the eighteenth century to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to selected works.

FBG 100 Fiberglass Mold Making 3 4 5

Prerequisites: BTB 102

Corequisites: None

This course introduces the construction of male and female molds for fiberglass boat production. Emphasis is placed on perfecting the plug chopper gun operation, materials and methods for mold construction, and current trends in the boat building industry. Upon completion, students should be able to finish a plug to the standards required by the industry and build a fiberglass mold suitable for production.

FRE 111 Elementary French I 3 0 3

Prerequisites:

Corequisites: None

This course introduces the fundamental elements of the French language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written French and demonstrate cultural awareness.

FRE 112 Elementary French II 3 0 3

Prerequisites: FRE 111

Corequisites: None

This course is a continuation of FRE 111 focusing on the fundamental elements of the French language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written French and to demonstrate further cultural awareness.

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FRE 211 Intermediate French I 3 0 3

Prerequisites: FRE 112

Corequisites: None

This course provides a review and expansion of the essential skills of the French language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

FRE 212 Intermediate French II 3 0 3

Prerequisites: FRE 211

Corequisites: None

This course is a continuation of FRE 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

GEL 111 Introductory Geology 3 2 4

Prerequisites

Corequisites: None

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth.

GEL 113 Historical Geology 3 2 4

Prerequisites: GEL 111

Corequisites: None

This course covers the geological history of the earth and its life forms. Emphasis is placed on the study of rock strata, fossil groups, and geological time. Upon completion, students should be able to identify major fossil groups and associated rock strata and approximate ages of geological formations.

GEL 120 Physical Geology 3 2 4

Prerequisites

Corequisites: None

This course provides a study of the structure and composition of the earth's crust. Emphasis is placed on weathering, erosional and depositional processes, mountain building forces, rocks and minerals, and structural changes. Upon completion, students should be able to explain the structure, composition, and formation of the earth's crust.

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HEA 111 First Aid & Safety 1 2 2

Prerequisites:

Corequisites: None

This course provides first aid and safety education. Emphasis is placed on safe attitudes, accident prevention, and response to accidents and injuries. Upon completion, students should be able to demonstrate proper first aid and safety skills.

HEA 112 First Aid & CPR 1 2 2

Prerequisites:

Corequisites: None

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained.

HIS 115 Intro to Global History 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces the study of global history. Emphasis is placed on topics such as colonialism, industrialism, and nationalism. Upon completion, students should be able to analyze significant global historical issues. This course will focus primarily on Asia, Africa, Latin America, and the Middle East since 1500.

HIS 121 Western Civilization I 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces western civilization from pre-history to the early modern era. Topics include ancient Greece, Rome, and Christian institutions of the Middle Ages and the emergence of national monarchies in western Europe. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early western civilization.

HIS 122 Western Civilization II 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces western civilization from the early modern era to the present. Topics include the religious wars, the Industrial Revolution, World Wars I and II, and the Cold War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern western civilization.

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HIS 131 American History I 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socio-economic, and cultural developments in early American history.

HIS 132 American History II 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.

HRM 110 Intro to Hospitality 2 0 2

Prerequisites:

Corequisites: None

This course covers the growth and progress of the hospitality industry. Topics include financing, hotels, restaurants, and clubs. Upon completion, students should be able to demonstrate an understanding of the background, context, and career opportunities that exist in the hospitality industry.

HRM 115 Housekeeping 3 0 3

Prerequisites:

Corequisites: None

This course covers the scope, responsibilities, communications, terminology, materials, and concerns specific to hotel housekeeping. Topics include management and supervision of housekeeping staff in the proper cleaning and sanitation of rooms and public areas, budgeting, purchasing, security, and inventory control. Upon completion, students should be able to understand and apply the principles of organization and management of a housekeeping department.

HRM 115A Housekeeping Lab 0 2 1

Prerequisites:

Corequisites: HRM 115

This course is a laboratory to accompany HRM 115. Emphasis is placed on the development of skills for the performance of housekeeping tasks. Upon completion, students should be able to demonstrate mastery of housekeeping skills.

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HRM 120 Front Office Procedures 3 0 3

Prerequisites:

Corequisites: None

This course provides a systematic approach to hotel front office procedures. Topics include reservations, registration, guest satisfaction, occupancy and rate management, security, interdepartmental communications, and related guest services. Upon completion, students should be able to demonstrate a basic understanding of current front office operating systems, including efficient and courteous guest services.

HRM 120A Front Office Procedures Lab

0 2 1

Prerequisites:

Corequisites: HRM 120

This course is laboratory to accompany HRM 120. Emphasis is placed on practical computer applications of theory covered in HRM 120. Upon completion, students should be able to demonstrate a basic proficiency in computer-based, front office applications.

HRM 125 Hospitality Etiquette 1 0 1

Prerequisites:

Corequisites: None

This course covers social skills needed to effectively interact within organizational and customer situations. Topics include general social manners, personal appearance, table manners, restaurant and meeting etiquette, and business interaction. Upon completion, students should be able to function with confidence in various social, cultural, and professional situations.

HRM 135 Facilities Management 2 0 2

Prerequisites:

Corequisites: None

This course introduces the basic elements of planning and designing hospitality facilities, including their maintenance and upkeep. Topics include equipment and plant preventive maintenance, engineering, interior design, space utilization, remodeling and expansion, and traffic and work flow patterns. Upon completion, students should be able to demonstrate an understanding of the planning, design, and maintenance of hospitality physical plants and equipment.

HRM 140 Hospitality Tourism Law 3 0 3

Prerequisites:

Corequisites: None

This course covers the rights and responsibilities that the law grants to or imposes upon the hospitality industry. Topics include federal and state regulations, historical and current practices, safety and security, risk management, loss prevention, torts, and contracts. Upon completion, students should be

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able to demonstrate an understanding of the legal system to prevent or minimize organizational liability.

HRM 145 Hospitality Supervision 3 0 3

Prerequisites:

Corequisites: None

This course covers principles of supervision as they apply to the hospitality industry. Topics include recruitment, selection, orientation, training, evaluation, and leadership skills. Upon completion, students should be able to understand and apply basic supervisory skills unique to the hospitality and service industry.

HRM 150 Hospitality Training 3 0 3

Prerequisites:

Corequisites: None

This course introduces techniques and methodology involved in developing training programs. Topics include job specification, description and breakdown, training methods, coaching, evaluation, and management development. Upon completion, students should be able to produce job specifications, descriptions, and breakdowns and conduct technical training.

HRM 210 Meetings & Conventions 3 0 3

Prerequisites:

Corequisites: None

This course introduces organization, arrangement, and operation of conventions, trade shows, professional meetings, and food functions. Emphasis is placed on the methods of marketing, selling, and servicing conventions and trade shows and the division of administrative responsibilities in their operation. Upon completion, students should be able to describe and apply the principles of management to multi-function, multi-day conferences and events.

HRM 215 Restaurant Management 3 0 3

Prerequisites: CUL 135

Corequisites: None

This course provides an overview of the various challenges and responsibilities encountered in managing a food and beverage operation. Topics include planning, administration, organization, accounting, marketing, and human resources from an integrated managerial viewpoint. Upon completion, students should be able to demonstrate an understanding of the operation of a restaurant.

HRM 215 A Restaurant Mgt. Lab 0 2 1

Prerequisites:

Corequisites: HRM 215

This course is a laboratory to accompany HRM 215. Emphasis is placed on practical applications of restaurant management

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principles. Upon completion, students should be able to demonstrate a basic proficiency in restaurant management applications.

HRM 220 Food & Bev Controls 3 0 3

Prerequisites: MAT 110

Corequisites: None

This course introduces controls and accounting procedures used in the hospitality industry. Topics include analysis of financial statements, reports, and costs. Upon completion, students should be able to understand and apply food, beverage, and labor cost control systems.

HRM 220A Food & Bev

Control Lab

0 2 1

Prerequisites:

Corequisites: HRM 220

This course is a laboratory to accompany HRM 220. Emphasis is placed on practical computer applications of food and beverage control procedures. Upon completion, students should be able to demonstrate proficiency in computer-based control applications.

HRM 230 Club & Resort Mgt 2 0 2

Prerequisites:

Corequisites: None

This courses introduces specific principles of managing a hospitality operation in a resort or club setting. Topics include resort and club marketing, recreational and sport activity management, and retail management. Upon completion, students should be able to demonstrate an understanding of the specialized skills involved in resort and club management.

HRM 240 Hospitality Marketing 3 0 3

Prerequisites:

Corequisites: None

This course covers planning, organizing, directing, and analyzing the results of marketing programs in the hospitality industry. Emphasis is placed on market segmentation and analysis, product and image development, sales planning, advertising, public relations, and collateral materials. Upon completion, students should be able to prepare a marketing plan applicable to the hospitality industry.

HRM 245 Hosp Human Res Mgt 3 0 3

Prerequisites:

Corequisites: None

This course presents a systematic approach to human resource management in the hospitality industry. Topics include labor regulations and laws, hiring, development, discipline, motivation, separation, productivity, and organizational culture. Upon completion, students should be able to apply sound human resource management skills to the hospitality industry.

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	<u>Class</u>	<u>Lab</u>	<u>Credit</u>	<u>Clinical</u>
HRM 280 Hospitality Mgt Prob	3	0	3	
Prerequisites: HRM 220				
Corequisites: None				

This course addresses current global, national, and local concerns and issues in the hospitality industry. Emphasis is placed on problem-solving skills using currently available resources. Upon completion, students should be able to apply hospitality management principles to real challenges facing industry managers.

HUM 110 Technology and Society	3	0	3	
Prerequisites:				
Corequisites: None				

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology. This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in humanities/fine arts.

HUM 160 Introduction to Film	3	0	3	
Prerequisites:				
Corequisites: None				

This course introduces the fundamental elements of film artistry and production. Topics include film styles, history, and production techniques, as well as the social values reflected in film art. Upon completion, students should be able to critically analyze the elements covered in relation to selected films.

HYD 110 Hydraulics/Pneumatic I	2	3	3	
Prerequisites:				
Corequisites: None				

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

HYD 112 Hydraul/Med/Hev Duty	1	2	2	
Prerequisites:				
Corequisites: None				

This course introduces hydraulic theory and applications as applied to mobile equipment. Topics include component studies such as pumps, motors, valves, cylinders, filters, reservoirs, lines, and fittings. Upon completion, students should be able to identify, diagnose, test, and repair hydraulic systems using schematics and technical manuals.

	<u>Class</u>	<u>Lab</u>	<u>Credit</u>	<u>Clinical</u>
ISC 110 Workplace Safety	1	0	1	
Prerequisites:				
Corequisites: None				

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

ISC 112 Industrial Safety	2	0	2	
Prerequisites:				
Corequisites: None				

This course introduces the principles of industrial safety. Emphasis is placed on industrial safety and OSHA and environmental regulations. Upon completion, students should be able to demonstrate knowledge of a safe working environment.

ISC 132 Mfg Quality Control	2	3	3	
Prerequisites:				
Corequisites: None				

This course introduces quality concepts and techniques used in industry. Topics include elementary statistics and probability, process control, process capability, and quality improvement tools. Upon completion, students should be able to demonstrate an understanding of the concepts and principles of quality and apply them to the work environment.

ISC 135 Principles Industrial Mgt	3	0	3	
Prerequisites:				
Corequisites: None				

This course covers the managerial principles and practices required for organizations to succeed in modern industry. Topics include the functions and roles of all levels of management, organization design, and planning and control of manufacturing operations. Upon completion, students should be able to demonstrate an understanding of management principles and integrate these principles into job situations.

ISC 151 Plant Layout	2	2	3	
Prerequisites:				
Corequisites: None				

This course provides a practical study of factory planning. Emphasis is placed on site selection and efficient arrangement of work areas to achieve lower manufacturing costs. Upon completion, students should be able to produce sample layouts of manufacturing operations.

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ISC 226 Facilities Design

3 2 4

Prerequisites:

Corequisites: None

This course introduces the methods and principles used to obtain data and design an efficient manufacturing facility. Emphasis is placed on the design of an efficient material handling system to optimize departmental and work station design. Upon completion, students should be able to obtain the necessary data and use that data to design an efficient manufacturing facility.

LEX 110 Intro to Paralegal Study

2 0 2

Prerequisites:

Corequisites: None

This course introduces the paralegal profession and the legal system. Topics include regulations and concepts, ethics, case analysis, legal reasoning, career opportunities, certification, professional organizations, and other related topics. Upon completion, students should be able to explain the role of the paralegal and identify the skills, knowledge, and ethics required of legal assistants.

LEX 120 Legal Research/Writing I

2 2 3

Prerequisites:

Corequisites: None

This course introduces the techniques of legal research and writing. Emphasis is placed on locating, analyzing, applying, and updating sources of law; effective legal writing, including proper citation; and the use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 121 Legal Research/Writ II

2 2 3

Prerequisites: LEX 120

Corequisites: None

This course covers advanced topics in legal research and writing. Topics include more complex legal issues and assignments involving preparation of legal memos, briefs, and other documents and the advanced use of electronic research methods. Upon completion, students should be able to perform legal research and writing assignments using techniques covered in the course.

LEX 130 Civil Injuries

2 0 2

Prerequisites:

Corequisites: None

This course covers traditional tort concepts and the evolving body of individual rights created by statute. Topics include intentional and non-intentional torts with emphasis on negligence, strict liability, civil rights, workplace and environmental liability, remedies, and damages. Upon completion, stu-

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dents should be able to recognize, explain, and evaluate elements of civil injuries and related defenses.

LEX 140 Civil Litigation I

3 0 3

Prerequisites:

Corequisites: None

This course introduces the structure of the legal system and the rules governing civil litigation. Emphasis is placed on jurisdiction and the state and federal rules of civil procedure and rules of evidence. Upon completion, students should be able to assist an attorney in the preparation of a civil case.

LEX 150 Commercial Law

2 2 3

Prerequisites:

Corequisites: None

This course covers legally enforceable agreements, forms of organization, and selected portions of the Uniform Commercial Code. Topics include drafting and enforcement of contracts, leases, and related documents and selection and implementation of business organization forms, sales, and commercial papers. Upon completion, students should be able to apply the elements of a contract, prepare various business documents, and understand the role of commercial paper.

LEX 160 Crim Law & Procedure

2 2 3

Prerequisites:

Corequisites: None

This course introduces substantive criminal law and procedural rights of the accused. Topics include elements of state/federal crimes, defenses, constitutional issues, pre-trial and trial process, and other related topics. Upon completion, students should be able to explain elements of specific crimes and assist an attorney in preparing a criminal case.

LEX 170 Administrative Law

2 0 2

Prerequisites:

Corequisites: None

This course covers the scope, authority, and regulatory operations of various federal, state, and local administrative agencies. Topics include social security, worker's compensation, unemployment, zoning, and other related topics. Upon completion, students should be able to research sources of administrative law, investigate, and assist in representation of clients before administrative agencies.

LEX 210 Real Property I

2 0 2

Prerequisites:

Corequisites: None

This course introduces the study of real property law. Topics include the distinction between real and personal property, various estates, mechanics of conveyance and encumbrance, recordation, special proceedings, and other related topics.

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Upon completion, students should be able to identify estates, forms of deeds, requirements for recording, and procedures to enforce rights to real property.

LEX 211 Real Property II 1 4 3

Prerequisites: LEX 210

Corequisites: None

This course continues the study of real property law relating to title examination and preparation of closing documents. Topics include use of courthouse and other public records in title examination and preparation of documents required in real estate transactions and closings. Upon completion, students should be able to plot/draft a description, perform complete title examination, draft closing documents including title insurance forms, and prepare disbursement reconciliation.

LEX 220 Corporate Law 2 0 2

Prerequisites:

Corequisites: None

This course covers the legal aspects of forming, operating, and maintaining a business. Emphasis is placed on the business corporation with additional coverage of sole proprietorships and partnerships. Upon completion, students should be able to draft basic partnership and corporate documents and file these documents as required.

LEX 240 Family Law 2 0 2

Prerequisites:

Corequisites: None

This course covers laws governing domestic relations. Topics include marriage, separation, divorce, child custody, support, property division, adoption, domestic violence, and other related topics. Upon completion, students should be able to interview clients, gather information, and draft documents related to family law.

LEX 250 Wills, Estates, & Trusts 2 2 3

Prerequisites:

Corequisites: None

This course covers various types of wills, trusts, probate, estate administration, and intestacy. Topics include types of wills and execution requirements, caveats and dissents, intestate succession, inventories and accountings, distribution and settlement, and other related topics. Upon completion, students should be able to draft simple wills, prepare estate forms, understand administration of estates including taxation, and explain terms regarding trusts.

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LEX 260 Bankruptcy & Collections 2 0 2

Prerequisites:

Corequisites: None

This course provides an overview of the laws of bankruptcy and the rights of creditors and debtors. Topics include bankruptcy procedures and estate management, attachment, claim and delivery, repossession, foreclosure, collection, garnishment, and post-judgment collection procedure. Upon completion, students should be able to prepare and file bankruptcy forms, collection letters, statutory liens, and collection of judgments.

LEX 270 Law Office Mgt/Tech 1 2 2

Prerequisites:

Corequisites: None

This course provides an overview of law office management and organization. Topics include office forms, filing systems, billing/time keeping, computer systems, calendar systems, library administration, case management, office/personnel procedures, ethics, and technology. Upon completion, students should be able to set up and maintain various law office systems, monitor case progress, and supervise non-lawyer personnel.

LEX 280 Ethics & Professional 2 0 2

Prerequisites:

Corequisites: None

This course reinforces legal ethics and the role of the paralegal in a professional work environment. Topics include a review of ethics, employment opportunities, and search techniques; paralegal certification; and other related topics. Upon completion, students should be able to understand the role of a professional paralegal and identify authority that can properly be delegated by an attorney.

MAC 111 Machining Tech I 2 12 6

Prerequisites:

Corequisites: None

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 112 Machining Tech II 2 12 6

Prerequisites: MAC 111

Corequisites: None

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of

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machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

MAC 113 Machining Tech III 2 12 6

Prerequisites: MAC 112

Corequisites: None

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

MAC 122 CNC Turning 1 3 2

Prerequisites:

Corequisites: None

This course introduces the programming, setup, and operation of CNC turning centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC turning centers.

MAC 124 CNC Milling 1 3 2

Prerequisites:

Corequisites: None

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

MAC 131 Blueprint Read/Mach I 1 2 2

Prerequisites:

Corequisites: None

This course covers the basic principles of blueprint reading and sketching. Topics include multi-view drawings; interpretation of conventional lines; and dimensions, notes, and thread notations. Upon completion, students should be able to interpret basic drawings, visualize parts, and make pictorial sketches.

MAC 132 Blueprint Read/Mach II 1 2 2

Prerequisites: MAC 131

Corequisites: None

This course introduces more complex industrial blueprints. Emphasis is placed on auxiliary views, section views, violations of true project, special views, applications of GD & T, and interpretation of complex parts. Upon completion, students should be able to read and interpret complex industrial blueprints.

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MAC 152 Adv Machining Calc 1 2 2

Prerequisites:

Corequisites: None

This course combines mathematical functions with practical machine shop applications and problems. Emphasis is placed on gear ratios, lead screws, indexing problems, and their applications in the machine shop. Upon completion, students should be able to calculate solutions to machining problems.

MAC 153 Compound Angles 1 2 2

Prerequisites:

Corequisites: None

This course introduces the application of basic types and uses of compound angles. Emphasis is placed on problem solving by tilting and rotating adjacent angles to resolve an unknown compound angle. Upon completion, students should be able to set up and develop compound angles on parts using problem-solving techniques. This course is a unique concentration requirement of the Tool, Die, and Mold Making concentration in the Machining Technology program.

MAC 214 Machining Tech IV 2 12 6

Prerequisites: MAC 112

Corequisites: None

This course provides advanced applications and practical experience in the manufacturing of complex parts. Emphasis is placed on inspection, gauging, and the utilization of machine tools. Upon completion, students should be able to manufacture complex assemblies to specifications.

MAC 222 Advanced CNC Turning 1 3 2

Prerequisites: MAC 122

Corequisites: None

This course covers advanced methods in setup and operation of CNC turning centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC turning centers.

MAC 224 Advanced CNC Milling 1 3 2

Prerequisites: MAC 124

Corequisites: None

This course covers advanced methods in setup and operation of CNC machining centers. Emphasis is placed on programming and production of complex parts. Upon completion, students should be able to demonstrate skills in programming, operations, and setup of CNC machining centers.

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MAC 231 CNC Graphics

Prog: Turning 1 4 3

Prerequisites: MAC 121

Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for turning center applications. Emphasis is placed on the interaction of menus to develop a shape file in a graphics CAM system and to develop tool path geometry and part geometry. Upon completion, students should be able to develop a job plan using CAM software, include machine selection, tool selection, operational sequence, speed, feed, and cutting depth.

MAC 232 CNC Graphics

Prog: Milling 1 4 3

Prerequisites: MAC 121

Corequisites: None

This course introduces Computer Numerical Control graphics programming and concepts for machining center applications. Emphasis is placed on developing a shape file in a graphics CAM system and transferring coded information from CAM graphics to the CNC milling center. Upon completion, students should be able to develop a complete job plan using CAM software to create a multi-axis CNC program.

MAC 241 Jigs & Fixtures I 2 6 4

Prerequisites: MAC 112

Corequisites: None

This course introduces the application and use of jigs and fixtures. Emphasis is placed on design and manufacture of simple jigs and fixtures. Upon completion, students should be able to design and build simple jigs and fixtures.

MAC 242 Jigs & Fixtures II 1 9 4

Prerequisites: MAC 241

Corequisites: None

This course provides continued study in the application of jigs and fixtures. Emphasis is placed on design and manufacture of complex jigs and fixtures. Upon completion, students should be able to design and build complex jigs and fixtures.

MAS 110 Masonry I 4 18 10

Prerequisites:

Corequisites: None

This course introduces the basic principles of construction with masonry units. Topics include history of the masonry field, safety practices, blueprint reading, and principles of laying masonry units to the line using tools, equipment, and materials. Upon completion, students should be able to demonstrate knowledge of safety practices, blueprint reading, and basic tool use; identify materials; operate machinery; and lay masonry units.

Class Lab Credit Clinical

MAS 120 Masonry II 4 18 10

Prerequisites:

Corequisites: None

This course provides practical experience in cost estimating, foundations, bonding variations, expansion joints, wall ties, building codes, and other related topics. Emphasis is placed on material estimation, layout of footing, construction of walls, reinforcements, scaffolding, insulating, and building codes. Upon completion, students should be able to determine cost, plan sound building procedures, construct masonry projects, and apply building codes.

MAS 130 Masonry III 6 6 8

Prerequisites:

Corequisites: None

This course provides fundamentals and skills used in masonry construction. Emphasis is placed on building chimneys, fireplaces, columns, concrete masonry, and arches; using materials economically; satisfying needs and expectations; and proper work ethics. Upon completion, students should be able to build structures covered in the course, demonstrate increased speed and accuracy, and make smooth transitions between construction stages.

MAT 060 Essential Mathematics 3 2 4

Prerequisites: MAT 050

Corequisites: None

This course is a comprehensive study of mathematical skills which should provide a strong mathematical foundation to pursue further study. Topics include principles and applications of decimals, fractions, percents, ratio and proportion, order of operations, geometry, measurement, and elements of algebra and statistics. Upon completion, students should be able to perform basic computations and solve relevant, multi-step mathematical problems using technology where appropriate.

MAT 070 Introductory Algebra 3 2 4

Prerequisites: MAT 060

Corequisites: RED 080 or ENG 085

This course establishes a foundation in algebraic concepts and problem solving. Topics include signed numbers, exponents, order of operations, simplifying expressions, solving linear equations and inequalities, graphing, formulas, polynomials, factoring, and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

COURSE DESCRIPTIONS

Class Lab Credit Clinical

MAT 080 Intermediate Algebra 3 2 4

Prerequisites: MAT 070

Corequisites: RED 080 or ENG 085

This course continues the study of algebraic concepts with emphasis on applications. Topics include factoring; rational expressions; rational exponents; rational, radical, and quadratic equations; systems of equations; inequalities; graphing; functions; variations; complex numbers; and elements of geometry. Upon completion, students should be able to apply the above concepts in problem solving using appropriate technology.

MAT 101 Applied Mathematics I 2 2 3

Prerequisites: MAT 060

Corequisites: None

This course is a comprehensive review of arithmetic with basic algebra designed to meet the needs of certificate and diploma programs. Topics include arithmetic and geometric skills used in measurement, ratio and proportion, exponents and roots, applications of percent, linear equations, formulas, and statistics. Upon completion, students should be able to solve practical problems in their specific areas of study.

MAT 102 Applied Mathematics II 2 2 3

Prerequisites: MAT 101

Corequisites: None

This course introduces the concepts of right triangle trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and solid geometry, area and volume, and right triangle trigonometry. Upon completion, students should be able to solve applied problems both independently and collaboratively.

MAT 115 Mathematical Models 2 2 3

Prerequisites: MAT 070

Corequisites: None

This course develops the ability to utilize mathematical skills and technology to solve problems at a level found in non-mathematics-intensive programs. Topics include applications to percent, ratio and proportion, formulas, statistics, functional notation, linear functions and their groups, probability, sampling techniques, scatter plots, and modeling. Upon completion, students should be able to solve practical problems, reason and communicate with mathematics, and work confidently, collaboratively, and independently.

MAT 120 Geometry & Trig 2 2 3

Prerequisites: MAT 070

Corequisites: None

This course introduces the concepts of plane trigonometry and geometry with emphasis on applications to problem solving. Topics include the basic definitions and properties of plane and

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solid geometry, area and volume, right triangle trigonometry, and oblique triangles. Upon completion, students should be able to solve applied problems both independently and collaboratively using technology.

MAT 121 Algebra/Trig I 2 2 3

Prerequisites: MAT 070

Corequisites: None

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include simplification, evaluation, and solving of algebraic, radical, exponential, and logarithmic functions; descriptive statistics; right triangle trigonometry; and the use of technology. Upon completion, students should be able to demonstrate an understanding of the use of mathematics and technology to solve problems and analyze and communicate results.

MAT 122 Algebra/Trig II 2 2 3

Prerequisites: MAT 121

Corequisites: None

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, trigonometry, and systems of equations. Topics include translation and scaling of functions, Sine Law, Cosine Law, complex numbers, vectors, statistics, and systems of equations. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

MAT 140 Survey of Mathematics 3 0 3

Prerequisites: MAT 070

Corequisites: None

This course provides an introduction in a non-technical setting to selected topics in mathematics. Topics may include, but are not limited to, sets, logic, probability, statistics, matrices, mathematical systems, geometry, topology, mathematics of finance, and modeling. Upon completion, students should be able to understand a variety of mathematical applications, think logically, and be able to work collaboratively and independently.

MAT 140A Survey of Math Lab 0 2 1

Prerequisites: MAT 070

Corequisites: MAT 140

This course is a laboratory for MAT 140. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

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MAT 151 Statistics I 3 0 3
Prerequisites: MAT 080 or MAT 090
Corequisites: None

This course provides a project-based approach to the study of basic probability, descriptive and inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control, population parameter estimation, and hypothesis testing. Upon completion, students should be able to describe important characteristics of a set of data and draw inferences about a population from sample data.

MAT 151A Statistics I Lab 0 2 1
Prerequisites: MAT 080 or MAT 090
Corequisites: MAT 151

This course is a laboratory for MAT 151. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 161 College Algebra 3 0 3
Prerequisites: MAT 080 or MAT 090
Corequisites: None

This course provides an integrated technological approach to algebraic topics used in problem solving. Emphasis is placed on equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis/modeling. Upon completion, students should be able to choose an appropriate model to fit a data set and use the model for analysis and prediction.

MAT 161A College Algebra Lab 0 2 1
Prerequisites: MAT 080 or MAT 090
Corequisites: MAT 161

This course is a laboratory for MAT 161. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 162 College Trigonometry 3 0 3
Prerequisites: MAT 161
Corequisites: None

This course provides an integrated technological approach to trigonometry and its applications. Topics include trigonometric ratios, right triangles, oblique triangles, trigonometric functions, graphing, vectors, and complex numbers. Upon completion, students should be able to apply the above principles of trigonometry to problem solving and communication.

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MAT 162A College Trig Lab 0 2 1
Prerequisites: MAT 161
Corequisites: MAT 162

This course is a laboratory for MAT 162. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 171 Precalculus Algebra 3 0 3
Prerequisites: MAT 080 or MAT 090
Corequisites: None

This is the first of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions.

MAT 171A Precalc Algebra Lab 0 2 1
Prerequisites: MAT 080 or MAT 090
Corequisites: MAT 171

This course is a laboratory for MAT 171. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 172 Precalculus Trig 3 0 3
Prerequisites: MAT 171
Corequisites: None

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, and vectors. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

MAT 172A Precalculus Trig Lab 0 2 1
Prerequisites: MAT 171
Corequisites: MAT 172

This course is a laboratory for MAT 172. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

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MAT 175 Precalculus 4 0 4
 Prerequisites: High School Algebra III/Trigonometry
 Corequisites: None

This course provides an intense study of the topics which are fundamental to the study of calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction.

MAT 175A Precalculus Lab 0 2 1
 Prerequisites: High School Algebra III/Trigonometry
 Corequisites: MAT 175

This course is a laboratory for MAT 175. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 223 Applied Calculus 2 2 3
 Prerequisites: MAT 122
 Corequisites: None

This course provides an introduction to the calculus concepts of differentiation and integration by way of application and is designed for engineering technology students. Topics include limits, slope, derivatives, related rates, areas, integrals, and applications. Upon completion, students should be able to demonstrate an understanding of the use of calculus and technology to solve problems and to analyze and communicate results.

MAT 263 Brief Calculus 3 0 3
 Prerequisites: MAT 161
 Corequisites: None

This course introduces concepts of differentiation and integration and their applications to solving problems; the course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of basic calculus and technology to solve problems and to analyze and communicate results.

MAT 263A Brief Calculus Lab 0 2 1
 Prerequisites: MAT 161
 Corequisites: MAT 263

This course is a laboratory for MAT 263. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve

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problems, apply critical thinking, work in teams, and communicate effectively.

MAT 271 Calculus I 3 2 4
 Prerequisites: MAT 172 or MAT 175
 Corequisites: None

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable, with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions.

MAT 272 Calculus II 3 2 4
 Prerequisites: MAT 271
 Corequisites: None

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to use integration and approximation techniques to solve application problems.

MAT 273 Calculus III 3 2 4
 Prerequisites: MAT 272
 Corequisites: None

This course covers the calculus of several variables and is third calculus course in a three-course sequence. Topics include functions of several variables, partial derivatives, multiple integrals, solid analytical geometry, vector-valued functions, and line and surface integrals. Upon completion, students should be able to solve problems involving vectors and functions of several variables.

MAT 273A Calculus III Lab 0 2 1
 Prerequisites: MAT 272
 Corequisites: MAT 273

This course is a laboratory for MAT 273. Emphasis is placed on experiences that enhance the materials presented in the class. Upon completion, students should be able to solve problems, apply critical thinking, work in teams, and communicate effectively.

MAT 280 Linear Algebra 3 0 3
 Prerequisites: MAT 271
 Corequisites: None

This course provides a study of linear algebra topics with emphasis on the development of both abstract concepts and applications. Topics include vectors, systems of equations,

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matrices, determinants, vector spaces, linear transformations in two or three dimensions, eigenvectors, eigenvalues, diagonalization and orthogonality. Upon completion, students should be able to demonstrate both an understanding of the theoretical concepts and appropriate use of linear algebra models to solve application problems.

MAT 285 Differential Equations 3 0 3

Prerequisites: MAT 272

Corequisites: None

This course provides an introduction to ordinary differential equations with an emphasis on applications. Topics include first-order, linear higher-order, and systems of differential equations; numerical methods; series solutions; eigenvalues and eigenvectors; Laplace transforms; and Fourier series. Upon completion, students should be able to use differential equations to model physical phenomena, solve the equations, and use the solutions to analyze the phenomena.

MEC 110 Intro to CAD/CAM 2 2 3

Prerequisites:

Corequisites: None

This course introduces CAD/CAM. Emphasis is placed on transferring part geometry from CAD to CAM for the development of a CNC-ready program. Upon completion, students should be able to use CAD/CAM software to produce a CNC program.

MEC 111 Machine Processes I 2 3 3

Prerequisites:

Corequisites: None

This course introduces safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include safety, measuring tools, and the basic setup and operation of lathes, milling machines, drill presses, and saws. Upon completion, students should be able to manufacture a simple part to a specified tolerance.

MEC 112 Machine Processes II 2 3 3

Prerequisites: MEC 111

Corequisites: None

This course covers advanced use of milling machines and lathes. Emphasis is placed on safety and compound setup of milling machines and lathes for manufacture of projects with a specified fit. Upon completion, students should be able to demonstrate proper procedures for manufacture of assembled parts.

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MEC 130 Mechanisms 2 3 3

Prerequisites:

Corequisites: None

This course introduces the purpose and action of various mechanical devices. Topics include cams, cables, gear trains, differentials, screws, belts, pulleys, shafts, levers, lubricants, and other devices used to transmit or control signals. Upon completion, students should be able to analyze, maintain, and troubleshoot the components of mechanical systems.

MEC 145 Mfg Materials I 2 3 3

Prerequisites:

Corequisites: None

This course introduces a variety of manufacturing materials and common processing techniques. Emphasis is placed on the processing, testing, and application of materials such as wood, metals, plastics, ceramics, and composites. Upon completion, students should be able to demonstrate an understanding of fundamental engineering applications for a variety of materials, including their process capabilities and limitations.

MEC 161 Manufact Processes I 3 0 3

Prerequisites:

Corequisites: None

This course provides the fundamental principles of processing materials into usable forms for the customer. Emphasis is placed on material forming, removal, and value-added processing provided to the customer by the manufacturers. Upon completion, students should be able to apply principles of traditional and non-traditional processing for metals and non-metals.

MEC 161A Manufact Proc I Lab 0 3 1

Prerequisites:

Corequisites: MEC 161

This course is a laboratory for MEC 161. Emphasis is placed on experiences that enhance the materials presented in MEC 161. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in MEC 161.

MEC 172 Intro to Metallurgy 2 2 3

Prerequisites:

Corequisites: None

This course covers the production, properties, testing, classification, microstructure, and heat-treating effects of ferrous and non-ferrous metals. Topics include the iron-carbon phase diagram, ITT diagram, ANSI code, quenching, senescing, and other processes concerning metallurgical transformations. Upon completion, students should be able to understand the iron-carbon phase diagram, ITT diagram, microstructure images, and other phenomena concerning the behavior of metals.

COURSE DESCRIPTIONS

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MEC 180 Engineering Materials 2 3 3

Prerequisites:

Corequisites: None

This course covers the physical and mechanical properties of materials. Topics include testing, heat treating, ferrous and non-ferrous metals, plastics, composites, and material selection. Upon completion, students should be able to specify basic tests and properties and select appropriate materials on the basis of specific properties.

MEC 231 Comp-Aided Manufact I 1 4 3

Prerequisites:

Corequisites: None

This course introduces computer-aided manufacturing (CAM) applications and concepts. Emphasis is placed on developing/defining part geometry and the processing of information needed to manufacture parts. Upon completion, students should be able to demonstrate skills in defining part geometry, program development, and code generation using CAM software.

MEC 232 Comp-Aided Manufact II 1 4 3

Prerequisites: MEC 231

Corequisites: None

This course provides an in-depth study of CAM applications and concepts. Emphasis is placed on the manufacturing of complex parts using computer-aided manufacturing software. Upon completion, students should be able to manufacture complex parts using CAM software.

MEC 250 Statics & Strength Mat 4 3 5

Prerequisites: PHY 131 or PHY 151

Corequisites: None

This course covers the concepts and principles of statics and stress analysis. Topics include systems of forces on structures in equilibrium and analysis of stresses and strains on these components. Upon completion, students should be able to analyze forces and the results of stresses and strains on structural components.

MEC 265 Fluid Mechanics 2 2 3

Prerequisites:

Corequisites: None

This course covers the physical behavior of fluids and fluid systems. Topics include fluid statics and dynamics, laminar and turbulent flow, Bernoulli's Equation, components, applications, and other related topics. Upon completion, students should be able to apply fluid power principles to practical applications.

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MED 121 Medical Terminology I 3 0 3

Prerequisites:

Corequisites: None

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MED 122 Medical Terminology II 3 0 3

Prerequisites: MED 121

Corequisites: None

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders.

MKT 120 Principles of Marketing 3 0 3

Prerequisites:

Corequisites: None

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision making.

MNT 110 Intro Maint Procedures 1 3 2

Prerequisites:

Corequisites: None

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

MNT 220 Rigging & Moving 1 3 2

Prerequisites:

Corequisites: None

This course covers the principles of safe rigging practices for handling, placing, and moving heavy machinery and equipment. Topics include safety estimation, positioning of equipment slings, rollers, jacks, levers, dollies, ropes, chains, padding, and other related topics. Upon completion, students should be able to relocate and set up equipment safely using accepted rigging practices.

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MNT 230 Pumps & Piping Systems 1 3 2

Prerequisites:

Corequisites: None

This course covers pump installation and maintenance and related valves and piping systems. Topics include various types of pump systems and their associated valves, piping requirements, and other related topics. Upon completion, students should be able to select and install pump and piping systems and demonstrate proper maintenance and troubleshooting procedures.

MSC 110 Training Cruise I 0 3 1

Prerequisites:

Corequisites: None

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on the unique safety requirements aboard oceangoing vessels and the skills needed for oceanographic work. Upon completion, students should be able to safely live and work aboard an oceanographic research vessel conducting offshore scientific operations.

MSC 112 Training Cruise II 0 3 1

Prerequisites: MSC 110

Corequisites: None

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on maintaining a 24-hour navigation log and weather watch and safely conducting over-the-side biological sampling operations. Upon completion, students should be able to maintain a weather log, plot a cruise track, and safely use biological sampling gear.

MSC 114 Training Cruise III 0 3 1

Prerequisites: MSC 112

Corequisites: None

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on utilizing the navigational and hydrographical techniques needed to conduct an offshore bathymetric survey. Upon completion, students should be able to accurately navigate a vessel, gather bathymetric data, and prepare a depth contour plot of a predetermined quadrant.

MSC 122 Boat Hand/Seamanship 2 3 3

Prerequisites:

Corequisites: None

This course covers the skills of boat handling, the practice of seamanship, and safety and survival in the marine environment. Topics include safe boat handling, seamanship under adverse conditions, fire fighting, man overboard rescue, PFDs, EPIRBs, distress signals, lifeboats, and life rafts. Upon comple-

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tion, students should be able to competently operate small powerboats and demonstrate proficiency in the use of marine fire fighting and lifesaving equipment.

MSC 124 Industrial Skills 1 4 3

Prerequisites:

Corequisites: None

This course offers a practical approach to the mechanical and technical skills needed by technicians in a variety of marine-related jobs. Topics include industrial safety, measurement systems, hand and power tools, fasteners, corrosion protection, project design, and construction and cost estimation. Upon completion, students should be able to safely use hand and/or power tools and understand a variety of measurement and pricing systems.

MSC 126 Marine Engines 1 2 2

Prerequisites:

Corequisites: None

This course covers fundamental theory, troubleshooting, and maintenance of marine engines and related equipment, especially outboards. Emphasis is placed on maintenance and operational procedures, including corrosion control, lubrication, propellers, carburetors, two-cycle theory, magneto ignition, batteries, starters, alternators, and trailers. Upon completion, students should be able to understand how a marine engine and related components work, perform minor repairs, and properly maintain them.

MSC 132 Fishing Gear Tech I 2 3 3

Prerequisites:

Corequisites: None

This course introduces modern rope seamanship and fishing gear theory, design, repair, and analysis as it relates to fisheries research. Emphasis is placed on various practical knots, rope splicing, marine hardware, biological sampling gear classifications, and the basics of net construction, repair, and design. Upon completion, students should be able to implement marlin spike skills; repair netted material; and identify, design, and construct various types of biological entrapment and entanglement gear.

MSC 134 Fishing Gear Tech II 1 2 2

Prerequisites: MSC 132

Corequisites: None

This course offers further experience and instruction in fishing gear theory and design and the collection and recording of biological data. Emphasis is placed on the general skills needed to design, construct, and repair complex sampling gear and be employed as a fisheries technician. Upon completion, students should be able to understand and apply fishing gear design and construction techniques and collect, compile, and record biological data.

COURSE DESCRIPTIONS

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MSC 150 Marine Navigation 2 3 3

Prerequisites:

Corequisites: None

This course provides training in marine piloting and electronic navigation techniques. Topics include use of charts, instruments, navigational aids, compasses, nautical publications, radar, GPS, LORAN, and depth sounders, with an emphasis on plotting techniques. Upon completion, students should be able to demonstrate competence in the safe navigation of vessels utilizing and interpreting information obtained from navigational aids.

MSC 152 Marine Instrumentation 1 2 2

Prerequisites:

Corequisites: None

This course introduces the various types of oceanographic instrumentation used for the collection of data and samples by the oceanographic community. Emphasis is placed on data recording procedures, proper operation, safe handling, and calibration, maintenance, and repair of instruments. Upon completion, students should be able to safely and correctly use the instruments covered to conduct accurate field measurements.

MSC 154 Marine Photography 2 2 3

Prerequisites:

Corequisites: None

This course introduces the basic concepts, processes, and techniques of photography with emphasis on marine applications. Topics include proper camera operation, composition, exposure, lighting techniques, and the processing of black and white films and papers. Upon completion, students should be able to demonstrate proficiency in the operation of a camera and portable lighting tools with consistent exposures and darkroom techniques.

MSC 162 Oceanography I 3 0 3

Prerequisites:

Corequisites: None

This course provides a general description of the oceans, including their origin, chemical and physical characteristics, and circulation. Topics include a history of oceanography, sea water chemistry, ocean physics, atmospheric circulation and weather, oceanic circulation, and tides. Upon completion, students should be able to describe general atmospheric circulation, the physics and chemistry of sea water, and their effect on oceanic circulation.

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MSC 164 Oceanography II 1 2 2

Prerequisites:

Corequisites: None

This course provides a general description of the earth's interior, geological features beneath the sea, and coastal geology. Topics include bathymetry, plate tectonics, sedimentation, types of rocks and minerals, seismic profiling, waves, and coasts. Upon completion, students should be able to describe the geological features of the earth beneath the sea and the effect of waves on coasts.

MSC 172 Marine Biology 2 3 3

Prerequisites:

Corequisites: None

This course utilizes field trips to the beach, salt marsh, and other habitats to study marine animals and plants in their natural communities. Topics include divisions of the marine environment, distribution of life in the ocean, and the interrelationships of marine organisms in various habitats. Upon completion, students should be able to scientifically identify various marine species and describe the role they fill in their biological communities.

MSC 174 Marine Invert Zoology 3 2 4

Prerequisites:

Corequisites: None

This course covers the behavior and classification of marine invertebrates. Topics include identification, feeding behavior, reproduction, and symbiotic relationships of marine invertebrates. Upon completion, students should be able to identify and classify marine invertebrates and demonstrate an understanding of their basic anatomy and physiology.

MSC 182 Water Analysis I 1 2 2

Prerequisites:

Corequisites: None

This course is the first of two covering the practical analysis of water samples with an emphasis on marine-oriented techniques and procedures. Topics include basic chemistry laboratory skills and the use of wet chemistry and field meters to measure various chemically and biologically important parameters. Upon completion, students should be able to measure pH, salinity, turbidity, dissolved oxygen, and nitrite/nitrate nutrients in natural water samples.

MSC 216 Training Cruise IV 0 3 1

Prerequisites: MSC 114

Corequisites: None

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on conducting standard hydrographic stations using various oceanographic samplers. Upon completion, students should

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be able to set up and conduct a hydrographic station and collect accurate data using various types of marine instrumentation.

MSC 218 Training Cruise V 0 3 1

Prerequisites: MSC 216

Corequisites: None

This course covers the skills necessary to live and work safely aboard oceangoing research vessels. Emphasis is placed on conducting a broad range of oceanographic survey techniques, including chemical, meteorological, geological, physical, and biological surveys. Upon completion, students should be able to demonstrate competence in the skills required of a marine technician aboard an oceanographic or survey vessel.

MSC 254 Marine Data Processing 1 3 2

Prerequisites: CIS 111 and MSC 152

Corequisites: None

This course introduces standard oceanographic procedures used to process and analyze oceanographic data. Emphasis is placed on the use of standard recording procedures and computer applications for processing and analyzing oceanographic data. Upon completion, students should be able to record and analyze oceanographic data using standard procedures along with computer-based applications.

MSC 256 Cartography/Hydrographic Surveying 1 3 2

Prerequisites:

Corequisites: None

This course covers basic surveying and cartography techniques as they apply to marine research. Topics include topographic map and bathymetric chart basics, including symbols, contours, elevations, coordinate systems, and basic survey instruments, modeling, and field projects. Upon completion, students should be able to use topographic and bathymetric maps as a research tool and set up and conduct field surveys.

MSC 258 Multimedia Presentation 0 3 1

Prerequisites: CIS 111 and MSC 154

Corequisites: None

This course provides practical experience with a variety of visual presentation methods for scientific and generalized information presentation. Emphasis is placed on statistical data representation and effective presentations, including the use of overheads, computers, handouts, and other visual presentation methods. Upon completion, students should be able to prepare and present a color slide show, a computerized presentation, and a scientific paper with a variety of graphics.

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MSC 276 Marine Vertebrate Zoo 3 2 4

Prerequisites:

Corequisites: None

This course covers the behavior and classification of marine fishes, reptiles, birds, and mammals. Topics include identification, feeding behavior, reproduction, migration, and other marine vertebrate characteristics. Upon completion, students should be able to identify marine vertebrates and demonstrate an understanding of the methods marine vertebrates use to survive in the ocean.

MSC 284 Water Analysis II 1 3 2

Prerequisites: MSC 182

Corequisites: None

The course is the second of two covering the practical analysis of water samples with an emphasis on marine-oriented techniques and procedures. Topics include introductory microbiology techniques and the use of wet chemistry and laboratory instruments to measure various chemically and biologically important parameters. Upon completion, students should be able to culture microbes and measure levels of ions, trace metals, fluorescent dyes, and the phosphate and silicate nutrients.

NET 110 Data Comm/Networking 2 2 3

Prerequisites:

Corequisites: None

This course introduces data communication and networking. Topics include telecommunication standards, protocols, equipment, network topologies, communication software, LANs, WANs, the Internet, and network operating systems. Upon completion, students should be able to demonstrate understanding of the fundamentals of telecommunication and networking.

NET 115 Telecom Fundamentals 1 2 2

Prerequisites: CIS 110 or CIS 111

Corequisites: None

This course covers the fundamentals of the electronic transfer of information for those who have not received credit for NET 110. Topics include terminal emulation software usage, file transfer methods, PC-based fax/modem/voice-mail operations, accessing and navigating the Internet, and bulletin boards. Upon completion, students should be able to access and use on-line services and the Internet, send and receive e-mail, and perform other basic telecommunication operations.

NET 120 Network Install/Admin I 2 2 3

Prerequisites: NET 110

Corequisites: None

This course covers the installation and administration of network hardware and system software. Topics include network

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topologies, various network operating systems, server and workstation installation and configuration, printer services, and connectivity options. Upon completion, students should be able to perform basic installation and administration of departmental networks.

NET 260 Internet Dev & Support 3 0 3

Prerequisites: NET 110

Corequisites: None

This course covers issues relating to the development and implementation of Internet related tools and services. Topics include Internet organization, site registration, e-mail servers, Web servers, Web page development, legal issues, firewalls, multimedia, TCP/IP, service providers, FTP, list servers, and gateways. Upon completion, students should be able to develop and support the Internet services needed within an organization.

NUR 101 Practical Nursing I 7 6 11 6

Prerequisites: Enrollment in the Practical Nursing program

Corequisites: None

This course introduces concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, legal/ethical/professional issues, wellness/illness patterns, and basic nursing skills. Upon completion, students should be able to demonstrate beginning understanding of nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. This is a diploma-level course.

NUR 102 Practical Nursing II 8 0 12 12

Prerequisites:

Corequisites: NUR 101

This course includes more advanced concepts as related to the practical nurse's caregiver and discipline-specific roles. Emphasis is placed on the nursing process, delegation, cost effectiveness, legal/ethical/professional issues, and wellness/illness patterns. Upon completion, students should be able to begin participating in the nursing process to promote/maintain/restore optimum health for diverse clients throughout the life span. This is a diploma-level course.

NUR 103 Practical Nursing III 6 0 10 12

Prerequisites:

Corequisites: NUR 102

This course focuses on use of nursing/related concepts by practical nurses as providers of care/members of discipline in collaboration with health team members. Emphasis is placed on the nursing process, wellness/illness patterns, entry-level issues, accountability, advocacy, professional development, evolving technology, and changing health care delivery systems. Upon completion, students should be able to use the nursing process to promote/maintain/restore optimum health

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for diverse clients throughout the life span. This is a diploma-level course.

NUR 110 Nursing I 5 3 8 6

Prerequisites: Admission to the Associate Degree Nursing program

Corequisites: None

This course introduces concepts basic to beginning nursing practice. Emphasis is placed on introducing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to demonstrate beginning competence in caring for individuals with common alterations in health.

NUR 120 Nursing II 5 3 8 6

Prerequisites: NUR 110

Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on developing the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to participate in the delivery of nursing care for individuals with common alterations in health.

NUR 130 Nursing III 4 3 7 6

Prerequisites: NUR 120

Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on expanding the nurse's role as provider of care, manager of care, and member of the discipline of nursing. Upon completion, students should be able to deliver nursing care to individuals with common alterations in health.

NUR 189 Nursing Transition 1 3 2 0

Prerequisites:

Corequisites: None

This course is designed to assist the licensed practical nurse in transition to the role of the associate degree nurse. Topics include the role of the registered nurse, nursing process, homeostasis, and validation of selected nursing skills and physical assessment. Upon completion, students should be able to articulate into the ADN program at the level of the generic student.

NUR 210 Nursing IV 5 3 10 12

Prerequisites: NUR 130

Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on using collaboration as a provider of care, manager of

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care, and member of the discipline of nursing. Upon completion, students should be able to modify nursing care for individuals with common alterations in health.

NUR 220 Nursing V 4 3 10 15
Prerequisites: NUR 210
Corequisites: None

This course provides an expanded knowledge base for delivering nursing care to individuals of various ages. Emphasis is placed on the nurse's role as an independent provider and manager of care for a group of individuals and member of a multidisciplinary team. Upon completion, students should be able to provide comprehensive nursing care to a group of individuals with common complex health alterations.

NUT 110 Nutrition 3 0 3
Prerequisites:
Corequisites: None

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with food selection. Upon completion, students should be able to apply basic nutritional concepts to food preparation and selection.

OST 131 Keyboarding 1 2 2
Prerequisites:
Corequisites: None

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

OST 134 Text Entry & Format 3 2 4
Prerequisites: OST 131
Corequisites: None

This course is designed to provide the skills needed to increase speed, improve accuracy, and format documents. Topics include letters, memos, tables, and business reports. Upon completion, students should be able to produce mailable documents.

OST 136 Word Processing 1 2 2
Prerequisites:
Corequisites: None

This course introduces word processing concepts and applications. Topics include preparation of a variety of documents and mastery of specialized software functions. Upon completion, students should be able to work effectively in a computerized word processing environment.

OST 149 Med Legal Issues 2 0 2
Prerequisites:
Corequisites: None

This course introduces the complex legal, moral, and ethical issues involved in providing health-care services. Emphasis is placed on the legal requirements of medical practices; the relationship of physician, patient, and office personnel; professional liabilities; and medical practice liability. Upon completion, students should be able to demonstrate a working knowledge of current medical law and accepted ethical behavior. This course is a unique concentration requirement in the Medical Office Systems Technology concentration in the Office Systems Technology program.

OST 164 Text Editing Applications 3 0 3
Prerequisites:
Corequisites: None

This course provides a comprehensive study of editing skills needed in the workplace. Emphasis is placed on grammar, punctuation, sentence structure, proofreading, and editing. Upon completion, students should be able to use reference materials to compose and edit text.

OST 184 Records Management 1 2 2
Prerequisites:
Corequisites: None

This course includes the creation, maintenance, protection, security, and disposition of records stored in a variety of media forms. Topics include alphabetic, geographic, subject, and numeric filing methods. Upon completion, students should be able to set up and maintain a records management system.

OST 201 Medical Transcription I 3 2 4
Prerequisites: OST 136 and OST 164
Corequisites: MED 122 or OST 142

This course introduces dictating equipment and typical medical dictation. Emphasis is placed on efficient use of equipment, dictionaries, PDRs, and other reference materials. Upon completion, students should be able to efficiently operate dictating equipment and to accurately transcribe a variety of medical documents in a specified time. This course is intended for diploma programs.

OST 202 Medical Transcription II 3 2 4
Prerequisites: OST 201
Corequisites: None

This course provides additional practice in transcribing documents from various medical specialties. Emphasis is placed on increasing transcription speed and accuracy and understanding medical procedures and terminology. Upon completion, students should be able to accurately transcribe a variety of

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medical documents in a specified time. This course is intended for diploma programs.

OST 223 Machine Transcription I 1 2 2

Prerequisites: OST 134, OST 136, and OST 164

Corequisites: None

This course covers the use of transcribing machines to produce mailable documents. Emphasis is placed on appropriate formatting, advanced text editing skills, and transcription techniques. Upon completion, students should be able to transcribe documents into mailable copy.

OST 233 Office Publication Design 2 2 3

Prerequisites: OST 136

Corequisites: None

This course provides entry-level skills in using software with desktop publishing capabilities. Topics include principles of page layout, desktop publishing terminology and applications, and legal and ethical considerations of software use. Upon completion, students should be able to design and produce professional business documents and publications.

OST 236 Adv Word/Info Proc 2 2 3

Prerequisites: OST 136

Corequisites: None

This course develops proficiency in the utilization of advanced word/information processing functions. Topics include tables, graphics, macros, sorting, document assembly, merging, and newspaper and brochure columns. Upon completion, students should be able to produce a variety of complex business documents.

OST 247 CPT Coding in Med Off 1 2 2

Prerequisites: MED 122 or OST 142

Corequisites: None

This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS rules for Medicare billing. Upon completion, students should be able to properly code procedures and services performed by physicians in ambulatory settings.

OST 248 Diagnostic Coding 1 2 2

Prerequisites: MED 122 or OST 142

Corequisites: None

This course provides an in-depth study of diagnostic coding for the medical office. Emphasis is placed on ICD-9-CM codes used on superbills and other encounter forms. Upon completion, students should be able to apply the principles of diagnostic coding in the physician's office.

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OST 289 Office Systems Mgt 2 2 3

Prerequisites: OST 134, OST 136, and OST 164

Corequisites: None

This course provides a capstone course for the office professional. Topics include administrative office procedures, imaging, communication techniques, ergonomics, and equipment utilization. Upon completion, students should be able to function proficiently in a changing office environment.

PBT 100 Phlebotomy Technology 5 20 6

Prerequisites: Enrollment in the Phlebotomy Technology program

Corequisites: PBT 101

This course provides instruction in the skills needed for the proper collection of blood and other specimens used for diagnostic testing. Emphasis is placed on ethics, legalities, medical terminology, safety and universal precautions, health care delivery systems, patient relations, anatomy and physiology, and specimen collection. Upon completion, students should be able to demonstrate competence in the theoretical comprehension of phlebotomy techniques. This is a certificate-level course.

PBT 101 Phlebotomy Practicum 0 0 3 9

Prerequisites: Enrollment in the Phlebotomy Technology program

Corequisites: PBT 100

This course provides supervised experience in the performance of venipuncture and microcollection techniques in a clinical facility. Emphasis is placed on patient interaction and application of universal precautions, proper collection techniques, special procedures, specimen handling, and data management. Upon completion, students should be able to safely perform procedures necessary for specimen collections on patients in various health care settings. This is a certificate-level course.

PCI 161 Intro to Instrumentation 0 2 1

Prerequisites:

Corequisites: None

This course introduces various industrial and manufacturing process control environments by taking field trips to related industrial facilities. Topics include job descriptions, titles, and opportunities associated with the field of industrial process control instrumentation. Upon completion, students should be able to demonstrate an understanding of the job opportunities available in the field of process control instrumentation.

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PCI 162 Instrumentation Controls 2 3 3

Prerequisites: ELC 112 or ELC 131

Corequisites: None

This course surveys industrial process control instrumentation concepts, devices, and systems. Topics include process control devices and process control applications associated with industrial instrumentation. Upon completion, students should be able to demonstrate a basic understanding of the various industrial process control and instrumentation systems. This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.

PCI 261 Process Measurement 2 3 3

Prerequisites:

Corequisites: None

This course introduces the concepts associated with the measurement of different process variables. Topics include theory and applications involved with the process variables of flow, level, pressure, and temperature. Upon completion, students should be able to understand basic process measurements and demonstrate the ability to calibrate process control instrumentation. This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.

PCI 262 Intro to Process Control 3 3 4

Prerequisites: ELC 131

Corequisites: None

This course introduces process control and related instrumentation devices. Topics include basic process control theory, PID diagrams, and calibration methods associated with transducers, transmitters, control valves, and related process devices. Upon completion, students should be able to understand and troubleshoot basic process control devices and systems. This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.

PCI 263 Advanced Process Control 3 3 4

Prerequisites: PCI 262

Corequisites: None

This course covers advanced process control and instrumentation associated with closed and open loop-type process control and systems. Topics include analysis of cascade, distributed control, feedback, and feedforward process control systems using PID and advanced control applications. Upon completion, students should be able to understand and implement advanced process control and instrumentation systems. This course is a unique concentration requirement of the Instrumentation concentration in the Electronics Engineering Technology program.

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PCI 264 Process Control with PLCs 3 3 4

Prerequisites: ELC 128

Corequisites: None

This course introduces automatic process control implemented with PLC technology. Topics include interfacing and controlling advanced PID control loops and devices using various PLC-based systems. Upon completion, students should be able to demonstrate an understanding of advanced applications of process control and instrumentation systems with PLC-based devices.

PED 110 Fit and Well for Life 1 2 2

Prerequisites:

Corequisites: None

This course is designed to investigate and apply the basic concepts and principles of lifetime physical fitness and other health-related factors. Emphasis is placed on wellness through the study of nutrition, weight control, stress management, and consumer facts on exercise and fitness. Upon completion, students should be able to plan a personal, lifelong fitness program based on individual needs, abilities, and interests

PHI 215 Philosophical Issues 3 0 3

Prerequisites: ENG 111

Corequisites: None

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue.

PHI 240 Introduction to Ethics 3 0 3

Prerequisites: ENG 111

Corequisites: None

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice.

PHM 110 Intro to Pharmacy 3 0 3 0

Prerequisites: Enrollment in the Pharmacy Technology program

Corequisites: PHM 111 and PHM 115

This course introduces pharmacy practice and the technician's role in a variety of pharmacy settings. Topics include medical terminology and abbreviations, drug delivery systems, law and ethics, prescription and medication orders, and the health care

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system. Upon completion, students should be able to explain the role of pharmacy technicians, read and interpret drug orders, describe quality assurance, and utilize pharmacy references.

PHM 111 Pharmacy Practice I 3 3 4 0
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: PHM 110 and PHM 115

This course provides instruction in the technical procedures for preparing and dispensing drugs in the hospital and retail settings under supervision of a registered pharmacist. Topics include drug packaging and labeling, out-patient dispensing, hospital dispensing procedures, controlled substance procedures, inventory control, and non-sterile compounding. Upon completion, students should be able to perform basic supervised dispensing techniques in a variety of pharmacy settings.

PHM 112 Pharmacy Practice II 3 3 4 0
Prerequisites: PHM 110 and PHM 111
Corequisites: None

This course provides continued instruction in the technical procedures for preparing and dispensing drugs in the hospital setting under a pharmacist's supervision. Topics include more detailed coverage of unit-dose dispensing, ward stock systems, materials management, automated dispensing, and quality assurance. Upon completion, students should be able to perform all technical aspects of hospital drug delivery systems.

PHM 115 Pharmacy Calculations 3 0 3
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: PHM 110 and PHM 111

This course provides an introduction to the metric, apothecary, and apothecary systems of measurement and the calculations used in pharmacy practice. Topics include ratio and proportion, dosage determinations, percentage preparations, reducing and enlarging formulas, dilution and concentration, aliquots, specific gravity and density, and flow rates. Upon completion, students should be able to correctly perform calculations required to properly prepare a medication order.

PHM 118 Sterile Products 3 3 4 0
Prerequisites: PHM 110 and PHM 111
Corequisites: None

This course provides an introduction to intravenous admixture preparation and other sterile products, including total parenteral nutrition and chemotherapy. Topics include aseptic techniques; facilities, equipment, and supplies utilized in admixture preparation; incompatibility and stability; laminar flow hoods; immunizations and irrigation solutions; and quality assurance. Upon completion, students should be able to describe and demonstrate the steps involved in preparation of

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intermittent and continuous infusions, total parenteral nutrition, and chemotherapy.

PHM 120 Pharmacology I 3 0 3 0
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: None

This course introduces the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include nutritional products, blood modifiers, hormones, diuretics, cardiovascular agents, respiratory drugs, and gastrointestinal agents. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 125 Pharmacology II 3 0 3 0
Prerequisites: PHM 120
Corequisites: None

This course provides a continuation of the study of the properties, effects, and therapeutic value of the primary agents in the major drug categories. Topics include autonomic and central nervous system agents, anti-inflammatory agents, and anti-infective drugs. Upon completion, students should be able to place major drugs into correct therapeutic categories and identify indications, side effects, and trade and generic names.

PHM 138 Pharmacy Clinical 0 0 8 24
Prerequisites: Enrollment in the Pharmacy Technology program
Corequisites: Reference program plan of study

This course provides an opportunity to work in pharmacy settings under a pharmacist's supervision. Emphasis is placed on effective communication with personnel, developing proper employee attitude, and dispensing of medications. Upon completion, students should be able to demonstrate an understanding of pharmacy operations, utilize references, dispense medications, prepare patient charges, and efficiently operate computers.

PHM 140 Trends in Pharmacy 2 0 2 0
Prerequisites:
Corequisites: Pharmacy Clinical as per program plan of study

This course covers the major issues, trends, and concepts in contemporary pharmacy practice. Topics include professional ethics, continuing education, job placement, and the latest developments in pharmacy technician practice. Upon completion, students should be able to demonstrate a basic knowledge of the topics discussed.

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PHM 165 Pharmacy Prof Practice 2 0 2 0
Prerequisites: Enrollment in the Pharmacy Technology program.
Corequisites: None

This course provides a general overview of all aspects of pharmacy technician practice. Emphasis is placed on pharmacy law, calculations, compounding, pharmacology, and pharmacy operations. Upon completion, students should be able to demonstrate competence in the areas required for the Pharmacy Technician Certification Examination.

PHY 110 Conceptual Physics 3 0 3
Prerequisites:
Corequisites: None

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied.

PHY 110A Concept Physics Lab 0 2 1
Prerequisites:
Corequisites: PHY 110

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110.

PHY 121 Applied Physics I 3 2 4
Prerequisites:
Corequisites: None

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Topics include systems of units, problem-solving methods, graphical analyses, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to demonstrate an understanding of the principles studied as applied in industrial and service fields.

PHY 122 Applied Physics II 3 2 4
Prerequisites:
Corequisites: None

This algebra-based course introduces fundamental physical concepts as applied to industrial and service technology fields. Emphasis is placed on systems of units, problem-solving methods, graphical analysis, static electricity, AC and DC circuits, magnetism, transformers, AC and DC motors, and generators. Upon completion, students should be able to

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demonstrate an understanding of the principles studied as applied in industrial and service fields.

PHY 131 Physics-Mechanics 3 2 4
Prerequisites: MAT 121
Corequisites: None

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 132 Physics-Elec & Magnet 3 2 4
Prerequisites: PHY 131
Corequisites: None

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem-solving methods, graphical analysis, waves, electricity, magnetism, circuits, transformers, motors, and generators. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

PHY 140 Physics-Mech Structures 3 2 4
Prerequisites: PHY 131
Corequisites: None

This algebra/trigonometry-based course introduces the analysis of mechanical structures. Topics include equilibrium of two and three-dimensional forces, centroids, center of gravity, and the analysis of trusses and frames. Upon completion, students should be able to analyze typical structural systems and calculate internal and external forces on structural members.

PHY 151 College Physics I 3 2 4
Prerequisites: MAT 162, MAT 172, or MAT 175
Corequisites: None

This course uses algebra and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

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PHY 152 College Physics II

3 2 4

Prerequisites: PHY 151

Corequisites: None

This course uses algebra and trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 251 General Physics I

4 3 5

Prerequisites: MAT 271

Corequisites: MAT 272

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vector operations, linear kinematics and dynamics, energy, power, momentum, rotational mechanics, periodic motion, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PHY 252 General Physics II

3 3 4

Prerequisites: MAT 272 and PHY 251

Corequisites: None

This course uses calculus-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem-solving ability for the topics covered.

PLU 211 Commercial/Ind Plumb

2 2 3

Prerequisites:

Corequisites: None

This course covers the installation of various commercial and industrial piping. Topics include piping in steam, gas, air, fire sprinklers, and other related topics. Upon completion, students should be able to select and install various piping systems for a variety of applications.

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POL 120 American Government

3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course is a study of the origins, development, structure, and functions of American national government. Topics include the constitutional framework, federalism, the three branches of government including the bureaucracy, civil rights and liberties, political participation and behavior, and policy formation. Upon completion, students should be able to demonstrate an understanding of the basic concepts and participatory processes of the American political system.

POL 130 State & Local Gov

3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course includes state and local political institutions and practices in the context of American federalism. Emphasis is placed on procedural and policy differences as well as political issues in state, regional, and local governments of North Carolina. Upon completion, students should be able to identify and discuss various problems associated with intergovernmental politics and their effect on the community and the individual.

POL 210 Comparative Gov

3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course provides a cross-national perspective on the government and politics of contemporary nations such as Great Britain, France, Germany, and Russia. Topics include each country's historical uniqueness, key institutions, attitudes and ideologies, patterns of interaction, and current political problems. Upon completion, students should be able to identify and compare various nations' governmental structures, processes, ideologies, and capacity to resolve major problems.

PSY 118 Interpersonal Psychology

3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces the basic principles of psychology as they relate to personal and professional development. Emphasis is placed on personality traits, communication/leadership styles, effective problem solving, and cultural diversity as they apply to personal and work environments. Upon completion, students should be able to demonstrate an understanding of these principles of psychology as they apply to personal and professional development.

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PSY 150 General Psychology 3 0 3
Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095
Corequisites: None

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology.

PSY 241 Developmental Psych 3 0 3
Prerequisites: PSY 150
Corequisites: None

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span.

PSY 244 Child Development I 3 0 3
Prerequisites: PSY 150
Corequisites: None

This course provides an introduction to the study of child development and examines the growth and development of children from conception through early childhood. Topics include historical and theoretical perspectives, terminology, research and observation techniques as well as physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of the early stages of child development.

PSY 245 Child Development II 3 0 3
Prerequisites: PSY 244
Corequisites: None

This course examines the growth and development of children during early and middle childhood. Emphasis is placed on factors influencing physical, cognitive, and psychosocial growth and change. Upon completion, students should be able to demonstrate an understanding of early and middle child development.

PSY 281 Abnormal Psychology 3 0 3
Prerequisites: PSY 150
Corequisites: None

This course provides an examination of the various psychological disorders, as well as theoretical, clinical, and experimental perspectives of the study of psychopathology. Emphasis is placed on terminology, classification, etiology, assessment, and treatment of the major disorders. Upon completion,

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students should be able to distinguish between normal and abnormal behavior patterns as well as demonstrate knowledge of etiology, symptoms, and therapeutic techniques.

RAD 110 Rad Intro & Patient Care 2 3 3 0
Prerequisites: Enrollment in Radiography program
Corequisites: RAD 111 and RAD 151

This course provides an overview of the radiography profession and student responsibilities. Emphasis is placed on basic principles of patient care, radiation protection, technical factors, and medical terminology. Upon completion, students should be able to demonstrate basic skills in these areas.

RAD 111 RAD Procedures I 3 3 4 0
Prerequisites: Enrollment in the Radiography program
Corequisites: RAD 110 and RAD 151

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the chest, abdomen, extremities, spine, and pelvis. Upon completion, students should be able to demonstrate competence in these areas.

RAD 112 RAD Procedures II 3 3 4 0
Prerequisites: RAD 110, RAD 111, and RAD 151
Corequisites: RAD 121 and RAD 161

This course provides the knowledge and skills necessary to perform standard radiographic procedures. Emphasis is placed on radiography of the skull, bony thorax, and gastrointestinal, biliary, and urinary systems. Upon completion, students should be able to demonstrate competence in these areas.

RAD 121 Radiographic Imaging I 2 3 3 0
Prerequisites: RAD 110, RAD 111, and RAD 151
Corequisites: None

This course covers factors of image quality and methods of exposure control. Topics include density, contrast, recorded detail, distortion, technique charts, manual and automatic exposure control, and tube rating charts. Upon completion, students should be able to demonstrate an understanding of exposure control and the effects of exposure factors on image quality.

RAD 122 Radiographic Imaging II 1 3 2 0
Prerequisites: RAD 112, RAD 121, and RAD 161
Corequisites: RAD 131 and RAD 171

This course covers image receptor systems and processing principles. Topics include film, film storage, processing, intensifying screens, grids, and beam limitation. Upon completion, students should be able to demonstrate the principles of selection and usage of imaging accessories to produce quality images.

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RAD 131 Radiographic Physics I 1 3 2 0

Prerequisites: RAD 112, RAD 121, and RAD 161

Corequisites: RAD 122 and RAD 171

This course introduces the fundamental principles of physics that underlie diagnostic X-ray production and radiography. Topics include electromagnetic waves, electricity and magnetism, electrical energy, and power and circuits as they relate to radiography. Upon completion, students should be able to demonstrate an understanding of basic principles of physics as they relate to the operation of radiographic equipment.

RAD 151 RAD Clinical Ed I 0 0 2 6

Prerequisites: Enrollment in the Radiography program

Corequisites: RAD 110 and RAD 111

This course introduces patient management and basic radiographic procedures in the clinical setting. Emphasis is placed on mastering positioning of the chest and extremities, manipulating equipment, and applying principles of ALARA. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 161 RAD Clinical Ed II 0 0 5 15

Prerequisites: RAD 110, RAD 111, and RAD 151

Corequisites: RAD 112 and RAD 121

This course provides additional experience in patient management and in more complex radiographic procedures. Emphasis is placed on mastering positioning of the spine, pelvis, head and neck, and thorax and adapting procedures to meet patient variations. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 171 RAD Clinical Ed III 0 0 4 12

Prerequisites: RAD 112, RAD 121, and RAD 161

Corequisites: RAD 122 and RAD 131

This course provides experience in patient management specific to fluoroscopic and advanced radiographic procedures. Emphasis is placed on applying appropriate technical factors to all studies and mastering positioning of gastrointestinal and urological studies. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 211 RAD Procedures III 2 3 3 0

Prerequisites: RAD 122

Corequisites: RAD 231, RAD 241, and RAD 251

This course provides the knowledge and skills necessary to perform standard and specialty radiographic procedures. Emphasis is placed on radiographic specialty procedures, pathology, and advanced imaging. Upon completion, students should be able to demonstrate competence in these areas.

Class Lab Credit Clinical

RAD 231 Radiographic Physics II 1 3 2 0

Prerequisites: RAD 171

Corequisites: RAD 211, RAD 241, and RAD 251

This course continues the study of physics that underlie diagnostic X-ray production and radiographic and fluoroscopic equipment. Topics include X-ray production, electromagnetic interactions with matter, X-ray devices, equipment circuitry, targets, filtration, and dosimetry. Upon completion, students should be able to demonstrate an understanding of the application of physical concepts as related to image production.

RAD 241 Radiation Protection 2 0 2 0

Prerequisites: RAD 122, RAD 131, and RAD 171

Corequisites: RAD 211, RAD 231, and RAD 251

This course covers the principles of radiation protection and radiobiology. Topics include the effects of ionizing radiation on body tissues, protective measures for limiting exposure to the patient and personnel, and radiation monitoring devices. Upon completion, students should be able to demonstrate an understanding of the effects and uses of radiation in diagnostic radiology.

RAD 245 Radiographic Analysis 2 3 3 0

Prerequisites: RAD 251

Corequisites: RAD 261

This course provides an overview of imaging concepts and introduces methods of quality assurance. Topics include a systematic approach for image evaluation and analysis of imaging service and quality assurance. Upon completion, students should be able to establish and administer a quality assurance program and conduct a critical review of images.

RAD 251 RAD Clinical Ed IV 0 0 7 21

Prerequisites: RAD 122, RAD 131, and RAD 171

Corequisites: RAD 211, RAD 231, and RAD 241

This course provides the opportunity to continue mastering all basic radiographic procedures and to attain experience in advanced areas. Emphasis is placed on equipment operation, pathological recognition, pediatric and geriatric variations, and a further awareness of radiation protection requirements. Upon completion, students should be able to demonstrate successful completion of clinical objectives.

RAD 261 RAD Clinical Ed V 0 0 7 21

Prerequisites: RAD 251

Corequisites: RAD 245

This course is designed to enhance expertise in all radiographic procedures, patient management, radiation protection, and image production and evaluation. Emphasis is placed on developing an autonomous approach to the diversity of clinical situations and successfully adapting to those procedures. Upon

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completion, students should be able to demonstrate successful completion of clinical objectives.

REA 101 Intro Real Est App R-1 2 0 2

Prerequisites:

Corequisites: None

This course introduces the entire valuation process, with specific coverage of residential neighborhood and property analysis. Topics include basic real property law, concepts of value and operation of real estate markets, mathematical and statistical concepts, finance, and residential construction/design. Upon completion, students should be able to demonstrate adequate preparation for REA 102. This course is required for the Real Estate Appraisal certificate.

REA 102 Valuation Prin & Prac R-2 2 0 2

Prerequisites: REA 101

Corequisites: None

This course introduces procedures used to develop an estimate of value and how the various principles of value relate to the application of such procedures. Topics include the sales comparison approach, site valuation, sales comparison, the cost approach, the income approach, and reconciliation. Upon completion, students should be able to complete the Uniform Residential Appraisal Report (URAR). This course is required for the Real Estate Appraisal certificate.

REA 103 Applied Res Prop Val R-3 2 0 2

Prerequisites: REA 102

Corequisites: None

This course covers the laws and standards practiced by appraisers in the appraisal of residential 1-4 unit properties and small farms. Topics include Financial Institutions Reform and Recovery Enforcement Act (FIRREA), Uniform Standards of Professional Appraisal Practice (USPAP), and North Carolina statutes and rules. Upon completion, students should be able to demonstrate eligibility to sit for the NC Appraisal Board license trainee examination and to enroll in REA 201. This course is required for the Real Estate Appraisal certificate.

REA 201 Intro Income Prop App G-1 2 0 2

Prerequisites: REA 103

Corequisites: None

This course introduces concepts and techniques used to appraise real estate income properties. Topics include real estate market analysis, property analysis and site valuation, how to use financial calculators, present value, NOI, and before-tax cash flow. Upon completion, students should be able to estimate income property values using direct capitalization and to sit for the NC Certified Residential Appraiser examina-

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tion. This course is required for the Real Estate Appraisal certificate.

REA 202 Adv Inc Capital Proc G-2 2 0 2

Prerequisites: REA 201

Corequisites: A financial calculator is required for this course

This course expands direct capitalization techniques and introduces yield capitalization. Topics include yield rates, discounted cash flow, financial leverage, and traditional yield capitalization formulas. Upon completion, students should be able to estimate the value of income producing property using yield capitalization techniques. This course is required for the Real Estate Appraisal certificate.

REA 203 Applied Inc Prop Val G-3 2 0 2

Prerequisites: REA 202

Corequisites: None

This course covers the laws, rules, and standards pertaining to the principles and practices applicable to the appraisal of income properties. Topics include FIRREA, USPAP, Uniform Commercial and Industrial Appraisal Report (UCIAR) form, North Carolina statutes and rules, and case studies. Upon completion, students should be able to prepare a narrative report that conforms to the USPAP and sit for the NC Certified General Appraisal examination. This course is required for the Real Estate Appraisal certificate.

REL 110 World Religions 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces the world's major religious traditions. Topics include Primal religions, Hinduism, Buddhism, Islam, Judaism, and Christianity. Upon completion, students should be able to identify the origins, history, beliefs, and practices of the religions studied.

REL 221 Religion in America 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course is an examination of religious beliefs and practice in the United States. Emphasis is placed on mainstream religious traditions and non-traditional religious movements from the Colonial period to the present. Upon completion, students should be able to recognize and appreciate the diversity of religious traditions in America.

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RLS 112 Real Estate Fundament 4 0 4

Prerequisites:

Corequisites: None

This course provides basic instruction in real estate principles and practices. Topics include law, finance, brokerage, closing, valuation, management, taxation, mathematics, construction, land use, property insurance, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate basic knowledge and skills necessary for real estate sales.

RLS 113 Real Estate Mathematics 2 0 2

Prerequisites:

Corequisites: None

This course provides basic instruction in business mathematics applicable to real estate situations. Topics include area computations, percentage of profit/loss, bookkeeping and accounting methods, appreciation and depreciation, financial calculations and interest yields, property valuation, insurance, taxes, and commissions. Upon completion, students should be able to demonstrate proficiency in applied real estate mathematics.

RLS 114 Real Estate Brokerage 2 0 2

Prerequisites: RLS 112 or current Real Estate license

Corequisites: None

This course provides basic instruction in the various real estate brokerage operations, including trust account records and procedures. Topics include establishing a brokerage firm, management concepts and practices, personnel and training, property management, advertising and publicity, records and bookkeeping systems, and financial operations. Upon completion, students should be able to establish, operate, and manage a realty brokerage practice in a manner which protects and serves the public interest.

RLS 115 Real Estate Finance 2 0 2

Prerequisites: RLS 112 or current Real Estate license

Corequisites: None

This course provides advanced instruction in financing real estate transactions and real property valuation. Topics include sources of mortgage funds, financing instruments, mortgage types, loan underwriting, essential mathematics, and property valuation. Upon completion, students should be able to demonstrate knowledge of real estate finance necessary to act as real estate brokers.

RLS 116 Real Estate Law 2 0 2

Prerequisites: RLS 112 or current Real Estate license

Corequisites: None

This course provides advanced instruction in legal aspects of real estate brokerage. Topics include property ownership and interests, brokerage relationships, agency law, contracts, settle-

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ment statements, and NC License Law and Commission Rules. Upon completion, students should be able to demonstrate knowledge of laws relating to real estate brokerage necessary to act as real estate brokers.

SOC 210 Intro to Sociology 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies.

SOC 213 Sociology of the Family 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change.

SOC 220 Social Problems 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems.

SOC 242 Sociology of Deviance 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course provides an overview of deviant behavior and the processes involved in its definition, causation, prevention, control, and treatment. Topics include theories of causation, social control, delinquency, victimization, criminality, the criminal justice system, punishment, rehabilitation, and restitution. Upon completion, students should be able to identify and analyze issues surrounding the nature and development of social responses to deviance.

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SPA 111 Elementary Spanish I 3 0 3

Prerequisites:

Corequisites: None

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness.

SPA 112 Elementary Spanish II 3 0 3

Prerequisites: SPA 111

Corequisites: None

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness.

SPA 211 Intermediate Spanish I 3 0 3

Prerequisites: SPA 112

Corequisites: None

This course provides a review and expansion of the essential skills of the Spanish language. Emphasis is placed on the study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate effectively, accurately, and creatively about the past, present, and future.

SPA 212 Intermediate Spanish II 3 0 3

Prerequisites: SPA 211

Corequisites: None

This course provides a continuation of SPA 211. Emphasis is placed on the continuing study of authentic and representative literary and cultural texts. Upon completion, students should be able to communicate spontaneously and accurately with increasing complexity and sophistication.

SWK 110 Intro to Social Work 3 0 3

Prerequisites: Proficiency in reading or a grade of "C" or better in ENG 095

Corequisites: None

This course examines the historical development, values, orientation, and professional standards of social work and focuses on the terminology and broader systems of social welfare. Emphasis is placed on the various fields of practice including those agencies whose primary function is financial assistance, corrections, mental health, and protective services. Upon completion, students should be able to demonstrate an

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understanding of the knowledge, values, and skills of the social work professional.

TRP 100 Truck Driver Training 6 18 12

Prerequisites:

Corequisites: None

This course provides training in inspecting and driving tractor trailers and assuming driver responsibilities on the road and at pickup and delivery points. Emphasis is placed on defensive driving, federal motor carrier safety regulations, trip planning, cargo handling, vehicle systems, hours of service, and accident prevention. Upon completion, students should be able to demonstrate the skills required for the commercial driver's license and employment. This is a certificate-level course.

WLD 110 Cutting Processes 1 3 2

Prerequisites:

Corequisites: None

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

WLD 112 Basic Welding Process 1 3 2

Prerequisites:

Corequisites: None

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers, and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes.

WLD 115 SMAW (Stick) Plate 2 9 5

Prerequisites:

Corequisites: None

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

WLD 116 SMAW (Stick) Plate/Pipe

1 9 4

Prerequisites: WLD 115

Corequisites: None

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed

COURSE DESCRIPTIONS

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electrodes in the flat, horizontal, vertical, and overhead positions.

WLD 121 GMAW (MIG)

FCAW/Plate 2 6 4

Prerequisites:

Corequisites: None

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

WLD 131 GTAW (TIG) Plate 2 6 4

Prerequisites:

Corequisites: None

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

WLD 132 GTAW (TIG) Plate/Pipe 1 6 3

Prerequisites: WLD 131

Corequisites: None

This course is designed to enhance skills with the gas tungsten arc (TIG) welding process. Topics include setup, joint preparation, and electrode selection with emphasis on manipulative skills in all welding positions on plate and pipe. Upon completion, students should be able to perform GTAW welds with prescribed electrodes and filler materials on various joint geometry.

WLD 141 Symbols & Specification 2 2 3

Prerequisites:

Corequisites: None

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

WLD 143 Welding Metallurgy 1 2 2

Prerequisites:

Corequisites: None

This course introduces the concepts of welding metallurgy. Emphasis is placed on basic metallurgy, effects of welding on various metals, and metal classification and identification. Upon completion, students should be able to understand basic

metallurgy, materials designation, and classification systems used in welding.

WLD 215 SMAW (Stick) Pipe 1 9 4

Prerequisites: WLD 115 or WLD 116

Corequisites: None

This course covers the knowledge and skills that apply to welding pipe. Topics include pipe positions, joint geometry, and preparation with emphasis placed on bead application, profile, and discontinuities. Upon completion, students should be able to perform SMAW welds to applicable codes on carbon steel pipe with prescribed electrodes in various positions.

WLD 231 GTAW (TIG) Pipe 1 6 3

Prerequisites: WLD 132

Corequisites: None

This course covers gas tungsten arc welding on pipe. Topics include joint preparation and fit up with emphasis placed on safety, GTAW welding technique, bead application, and joint geometry. Upon completion, students should be able to perform GTAW welds to applicable codes on pipe with prescribed electrodes and filler materials in various pipe positions.

STUDENT HANDBOOK

Where to go for What

Absences	Instructor
Academic Advising	Assigned Faculty Advisor
Academic Honors	Catalog/Admissions and Records
Academic Probation	Catalog/Counselors
Admissions	Student Development
Address Change	Admissions and Records
Advanced Placement	Counseling
Attendance	Instructor
Books, Supplies	Campus Bookstore
Buy, Sell, Trade Something	Bulletin Boards/Dean of Student Development
Career Counseling	Career and Testing
Change Program/Major	Counseling
Clubs and Organizations	Student Activities
Course Selection	Advisor/Counselor
Drop a Course	Instructor/Admissions and Records
Emergencies	Student Development

Fees	Business Office
Financial Aid	Financial Aid Office
First Aid	Admissions and Records
General Interest Courses	Continuing Education
Grading System	Catalog/Admissions and Records
Insurance	Business Office
Job Placement	Career and Testing
Lost & Found	Admissions and Records
Parking Permits & Regulations	Business Office
Personal Counseling	Counseling
Registration	Student Development
Student I.D. Card	Student Activities
Testing	Career and Testing
Transcripts	Admissions and Records
Transfer Counseling	Advisors/Counselors
Tutoring	Center for Academic Enhancement
Veterans	Financial Aid
Withdrawal from a Course	Admissions and Records

Services To Students

Orientation

Student Development offers orientation programs prior to the start of each academic session to acquaint new students to the College, its facilities, resources, services, activities, organizations and policies.

All new students are encouraged to take advantage of these programs to maximize their opportunities at CFCC.

Counseling

Academic, personal and career counseling services are offered on an ongoing basis. Professional counselors are available to assist students with attendance problems, academic probation counseling, personal concerns and to provide tips on study skills, time management and a variety of topics. Referrals to other agencies are sometimes made for additional information to assist students.

Services for Special Populations

The purpose of Cape Fear Community College's program for students with special needs is to provide auxiliary support services for students with various disabilities so that they may derive equal benefits from attending CFCC. This program provides numerous services that assist students in reaching their academic goals. Assistance may include services such as personal counseling, auxiliary aides, student advocacy, interpreters for the hearing impaired, reasonable accommodations and tutorial services. It is the student's responsibility to advise the Special Populations Coordinator that he/she has special needs and indicate what type of service or accommodation will be needed.

Career and Testing Services

Career counseling is available through the Office of Career and Testing Services. Students are assisted with career decision-making, employment trends, and educational requirements.

Job placement assistance is also available to students and graduates. Employment Security Commission (ESC) representatives are on campus weekly to increase job placement opportunities.

ASSET Testing

The ASSET test is used to determine whether a student needs academic skills enhancement to be successful in designated classes. This assessment is a tool the College provides to help students secure opportunities to achieve their educational goals.

GED Testing

The General Education Development (GED) diploma is administered at CFCC. Successful completion of the pre-GED is required before applying to take the GED test.

Retention and Graduation Rate Information

Anyone wishing to obtain information about first-time students rate of persistence and/or graduation rates should contact the Office of Career and Testing Services.

Developmental Studies

To help ensure student success, the College offers developmental courses to students who need help in the basic skills of reading, English, and/or mathematics. These courses are required for those students who have been identified by the Admissions and Records Office as needing enhancement in reading, English, or mathematics.

Developmental courses earn institutional credit; however, such credit does not apply toward the required hours for receiving a degree or in the calculation of grade point averages. The school-wide grading scale applies to grades assigned in developmental areas.

Center for Academic Enhancement

The Center for Academic Enhancement (CAE) helps students acquire needed skills that will allow them to be successful in their curriculum courses. Students may receive individual and small group instructional assistance in Technical, Vocational, and College Transfer courses after submitting a signed Instructor Recommendation Form. There is also an open lab section in the CAE that is available to students, faculty, staff and community patrons.

The CAE maintains a resource of software programs that students can use to review and increase skill level in a variety of courses. The supplemental computer assisted instruction is available on an individual student basis.

The Center's hours of operation are 7:30 AM - 10:00 PM Monday through Friday, 7:30 AM - 5:00 PM Friday, and 9:00 AM - 1:00 PM on Saturday.

Health and First Aid Services

The following health services are provided through the Office of Student Development:

- (1) Minor first aid is available on campus.
- (2) Illness and injury that cannot be taken care of by individuals on campus will be referred to community health facilities.
- (3) A drug abuse prevention program is sponsored by the College which includes distribution of available literature, providing audio visual materials, making available through the Learning Resource Center a limited number of current books on the subject, and a counseling service that refers students to local health professionals trained in the area of substance abuse.

If illness or injury requiring transportation should occur before 5:00 PM, the Student Development Department should be contacted. The Duty Administrator (located at the switchboard) should be contacted after 5:00 PM.

Learning Resources Center (LRC)

The Learning Resources Center (LRC) is located on the sixth floor of the M.J. McLeod (S) building. The LRC is open from 7:30 AM to 10:00 PM Monday - Thursday, 7:30 AM to 5:00 PM Friday and 9:00 AM to 1:00 PM on Saturday. Summer hours are posted when different hours are observed. The LRC offers library and audiovisual services and an atmosphere which supports research, study and pleasure reading. The librarians and staff are always ready to help students.

The library has approximately 28,000 books and 670 periodicals. Easy to use, up-to-date electronic databases on CD-ROM include: Books-in-Print, Front-Page News, Info Trac, Careers and Jobs, World Book Encyclopedia, Grolier's Encyclopedia, and Social Issues Resource Series (SIRS) Researcher and SIRS Renaissance. The library keeps a large collection of magazines, the Wilmington Morning Star newspaper, and a variety of census records from the Cape Fear Region on microfilm. Entertainment videos are available to be checked out. Also helpful are the audiovisual (AV) services. Audiovisual services include instructional videos that support student research and AV equipment that may be used for class presentations. Teleconferences may be requested by faculty, staff and local industry. Copies of all telecourse broadcasts are available for student checkout.

The LRC also provides two publications, "A Guide to the Library" and "LRC: A Self-Guided Tour". Individual and class orientation tours, Internet classes, interlibrary loan, photocopy service and individual reference service are available at all times that the LRC is open.

If you would like to "Surf the Net", the LRC provides INTERNET access through the easy-to-use computer program, Netscape.

Continuing Education Services

The Continuing Education Department offers a variety of training opportunities and other classes to meet the needs of the community. These non-academic credit classes allow students to prepare for employment, upgrade skills or learn new skills. Training is also provided for employees of area industries and public agencies.

HRD/JTPA

The Human Resources Development Program (HRD) and Job Training Partnership Act (JTPA) division of Continuing Education offer classes throughout the year to help adults who are unemployed, underemployed or looking for further education.

Registration Information

Registration is the term used for enrolling in classes. Advisors and counselors will provide information which will assist students in choosing required classes, completing the registration form, securing a space in class and paying tuition fees.

Semester System

The academic year is divided into semesters and summer sessions. The Fall and Spring semester offers sixteen (16) weeks of instruction. The Summer instructional terms are provided either in an eleven (11) week session or two five and one-half (5 1/2) week sessions. Consult the Schedule of Classes for particular scheduling information.

Semester Hour Credit

Each course listed in the catalog and class schedule is followed by a notation on the number of semester hours it carries. Normally, the number of semester hours earned is based on the number of class, laboratory or shop hours spent under the supervision of the course instructor per week for the semester. Usually one semester hour credit is given for each lecture hour of class per week, for each two hours of laboratory work per week, or for each three hours of shop or manipulative laboratory per week. (A class hour is usually defined as 50 minutes of instruction.) Exceptions may be made in cases where specific classification is not feasible.

Course Load

Maximum course loads for which students may enroll are as follows:

Fall and/or Spring Semester(s) - Eighteen (18) credit hours except when program requirements determine otherwise.

Summer Session - Thirteen (13) credit hours except when program requirements determine otherwise.

Any exception must be approved by the Dean of Student Development.

Procedures for Registering for Classes

Step 1. Advisement & Scheduling - Faculty advise students concerning course schedule and sign registration cards.

Step 2. Schedule Input - Students' schedule will be input into the computers.

Step 3. Registration Receipt Form - Students must pick up their schedule/receipt form.

Step 4. Payment of Tuition Fees - Business Office - All students pay tuition and fees.

Pre-registration

Pre-registration provides an opportunity for currently enrolled students to select early the classes they need to take for the next academic session. Currently enrolled students are allowed and encouraged to pre-register at designated times.

Drop/Add/Late Registration

Drop/add/late registration will allow students to drop or add or register late during the times specified in each terms Schedule of Classes.

Auditing Courses

Students who wish to audit courses must register for the audit by following the regular registration procedures and indicating in writing on a Registration Card or Drop/Add form which course(s) they are auditing. Auditing students receive no credit and are not required to participate in class discussion or take tests. Fees for audit courses are the same as those taken for credit. Changes from audit to credit or credit to audit may only be done during registration and drop/add periods.

Withdrawal

Students desiring to withdraw from school must contact the Admissions and Records Office to obtain the necessary forms and procedures for official withdrawal. Students who stop attending a class without officially withdrawing will receive an NC (No Credit), which is computed as a failing grade.

Students who withdraw from a course(s) within the first 30% of class hours will receive a grade of W which will not be computed in the GPA (Grade Point Average). Students who withdraw from a course(s) after this period must receive a grade of WP (Withdraw Passing) or WF (Withdraw Failing). A WP will not be computed in the GPA whereas a WF will be computed as a failing grade.

Students who withdraw from classes may be eligible for a tuition refund. See Refund Policy under the Expenses section of this handbook.

Students who withdraw after the twelfth week of classes must obtain permission in writing from the Dean of Student Development.

Academic Information

Student Advisement

Cape Fear Community College views student advisement as an important, on-going process. Each degree/certificate seeking student is assigned a faculty advisor who assists the student in selecting and scheduling appropriate classes to fulfill his/her educational requirements. Non-degree students are assigned counselors who assist in selecting and scheduling appropriate classes.

Students are required to meet with their assigned advisor each semester for assistance in scheduling classes and completing the registration form. Advisors' office hours are posted on their office doors.

Students must accept the responsibility of familiarizing themselves with specific course and program requirements.

While advising is an on-going process, specific times are designated prior to each registration period to highlight advising.

Grading and Grade Point Averages

Grading is done by the traditional method of A through D along with negative categories such as F (Failure), WF (Withdraw Failing) and NC (No Credit). Grades are assigned a numerical value when determining a student's Grade Point Average (GPA).

Grading System

Grade	Significance	Quality Points Per Semester Hour
A	Superior	4
B	Good	3
C	Average	2
D	Poor	1
F	Failure	0
I	Incomplete	0
NC	No Credit	0
W	Official Withdrawal	0
AU	Audit	0
WP	Withdraw Passing	0
WF	Withdraw Failing	0
CR	Credit by Exam	0
CT	Credit by Transfer	0

Grading Scale

The college grading scale is:

A	=	92 - 100
B	=	84 - 91
C	=	76 - 83
D	=	68 - 75
F	=	0 - 67

Translating Course Grades into GPA

By taking the number of semester hours assigned to a course and multiplying them by the value of the grade, you determine the grade points for each course attempted. Example: If you take five courses that are assigned a total of 18 semester hours, you may determine your GPA in the following manner:

Course	Grade	Semester Hours Attempted	Times Grade Value	Equals Quality Points
1	B	2	X 3	= 6
2	A	6	X 4	= 24
3	C	4	X 2	= 8
4	B	3	X 3	= 9
5	F	3	X 0	= 0
6	WP	0	X 0	= 0
TOTALS		18		47

Divide the total number of hours attempted into the total quality points and that will give you your GPA; in this case 2.61 is the GPA.

Attendance

Absences seriously disrupt students' progress in a class and diminish the quality of group interaction. Students are expected to punctually attend all lecture and laboratory sessions in the courses for which they are registered. Late arrivals and/or early departures may count toward total absences in classes.

Students must be in attendance at least eighty (80%) percent of the clock hours of a course to receive credit for the course. Those who do not meet minimum attendance requirements will be given the grade of NC (No Credit), which will be computed in the student's grade point average as a failing grade.

Attendance requirements for each class are printed in the first-day handout distributed by the instructor. Because of the nature of some courses, some instructors may have a more restrictive attendance requirement.

Special note to Marine Technology students: Students in the Marine Technology curriculum are at times involved in cruises on the ship that might take place during a holiday or semester break during which time students are normally off. When such occurs, students must participate in the cruise.

Final Grades

Final grades will be mailed directly to the student after the end of each academic session. Students will receive one grade report which lists all courses taken during the academic session in which they were registered. This report will also show grade point average, total number of credit hours earned as a CFCC student and cumulative grade point average.

Incomplete Grades

An incomplete will be given only when circumstances justify additional time to complete the course. An incomplete must be removed within six weeks of the first day of the following academic session it was received. Incompletes not finalized will convert to an F.

Credit by Proficiency

For selected courses, students may request credit by proficiency examination for previous experience or training. The student must be currently enrolled at CFCC and must not have enrolled in the course prior to taking the proficiency exam. The student must make written application to the Registrar and the department chair. Students may challenge a course only once. Students successfully passing a proficiency exam will receive credit for the course as a CR (credit for record).

Advanced Placement

An entering first-year student may receive semester hour credits based on Advanced Placement Examination of the College Entrance Examination Board (CEEB). These examinations are taken prior to the students high school graduation. Information on this examination program may be obtained from the high school counselor.

Cooperative Education

CFCC offers Cooperative Education in its Associate Degree programs. Co-op allows qualified students the opportunity to extend their classroom instruction to a viable work experience. Qualifying work experience must be related to the student's educational goals. Participating students receive college credits for the work experience and may use this as an elective.

To determine if you qualify or to find out more about Co-op, see your advisor.

CLEP

College Level Examination Program (CLEP) credit may be awarded for successful completion of specific exams. Official score reports (from CLEP) must be submitted to the Admissions and Records Office for evaluation of possible credit. CFCC does not administer CLEP exams.

Credit by proficiency, advanced placement and CLEP are awarded only for courses offered within the current curriculum of the institution and are appropriately related to the students educational program.

Proficiency Examination, Advanced Placement and CLEP credits are awarded for appropriate courses within a student's educational program of the College's current curricula.

Experiential Learning

CFCC does not award direct credit for previous experience or training. Proficiency exams or CLEP exams may be used as a means of receiving credit for prior knowledge.

Program Change

Students who desire to change from one program to another must see a Counselor to complete a Change of Program form. The counselor will evaluate program requirements and prerequisites and advise the student of any deficiencies. Students should also request re-evaluation of their transfer credits.

Catalog of Record

A student in continuous enrollment (except for summer session) may graduate under the requirements of the catalog in effect on his/her date of entry provided the courses are still offered or he/she may choose to meet the requirements of a subsequent issue. A student not in continuous enrollment must graduate under the provisions of the catalog in effect at the time of his/her last entry date or subsequent issue. A student who changes majors must meet the requirements of the catalog in effect at the time of the change of major.

Students enrolled in curricula which are revised to comply with the mandates of regulating accreditation or licensing agencies must meet those requirements in order to graduate from their program.

Course Repeat Policy

Courses that are repeated fall into three different categories:

1. Courses with an earned grade of C or better may be repeated one time with special permission from a counselor.
2. Courses with an earned grade of D, F, NC, or WF may be repeated a maximum of two times.
3. Audit courses may be repeated a maximum of two times.

When a course has been repeated, the higher grade will be used in GPA calculation. However, it is the responsibility of students who repeat classes to complete the necessary paperwork to have their academic transcripts evaluated. (The appropriate forms, Request for Transcript Review, are available through the Admissions and Records Office). Lower grades will be removed from GPA calculation; however, these grades will continue to appear on the academic transcript. Students may repeat a course a maximum of two times. When a course has been repeated twice, the highest of the three attempts will be used in GPA calculation.

Students who receive veterans benefits or financial aid should be advised that they may not receive funds for repeating courses which they have already passed.

Also, students who have received a degree from CFCC should be advised that the policy will not apply to courses which were taken to fulfill previous graduation requirements. A final student GPA (Grade Point Average) is computed at the time of graduation, and this GPA may not be recalculated as courses are repeated.

Academic Forgiveness

Students may request, in writing, to the Director of Enrollment Management to have previous credits deleted from their cumulative grade point averages. Academic forgiveness is designed to assist returning students with low grades to have a fresh start upon re-enrollment after having at least a three year period of non-enrollment at CFCC. Exceptions may be made by the Dean of Student Development.

Grades which may be disregarded from students' grade point averages are D, F, WF, and NC.

Requests for academic forgiveness must specify (1) the period of initial enrollment (2) the courses and grades considered for forgiveness and (3) the period of non-enrollment.

Students' granted academic forgiveness will have their cumulative grade point averages recalculated. While the forgiven grades will continue to appear on the official transcript, they will be marked with an asterisk and an explanation of exemption for grade point average calculation.

Academic forgiveness will be granted only one time.

In instances where academic forgiveness is granted for courses completed at CFCC and then transferred to another college or university, the receiving institution is not required to disregard those course grades.

Grade Appeal Procedure

Purpose

The purpose of the Student Grade Appeal Procedure is to provide an orderly and equitable process for resolving differences between students and faculty relating to instructional processes, grading or situations in the classroom where the student believes he/she is being treated unfairly or arbitrarily.

Procedure

Step 1 The student with the conflict must first discuss the issue with the class instructor to attempt to resolve the difference. Every reasonable effort should be made to resolve the matter at Step 1. This initial conference must occur within fifteen (15) class days of the beginning of the subsequent school term.

Step 2 If a satisfactory resolution is not reached at Step 1, the student may contact the Department Chair seeking resolution. The student must contact the chair within ten (10) class days of the conference with the instructor. The Department Chair will seek equitable resolution by conferring with both the student and the instructor.

Step 3 If the student continues to be dissatisfied, he/she may, within five (5) class days of the date of notification of Step 2, file a written notice with the instructional dean responsible for the course in question (Dean of Arts & Sciences or Dean of Technical/Vocational Education).

The Dean will review and evaluate the conflict to determine what action, if any, should be taken to resolve the conflict.

Written notification of that determination will be sent to the student within fifteen (15) class days of receipt of students written notice.

Step 4 If the student is dissatisfied with the outcome of Step 3, he/she may file a written grade appeal with the Dean of Student Development. Within ten (10) class days of receipt of the written appeal, the Dean will convene the Academic Subcommittee of the Judicial Board to hear the conflict and make a final determination regarding the issue.

The committee will notify the Dean of Student Development of its decision.

The Dean of Student Development will notify the student of the Committee's decision. The decision of the Academic Subcommittee shall be final with no further appeals. (See Judicial Board section for committee membership).

Students dismissed from the clinical area in Allied Health and Nursing programs will follow the appeals process outlined in the program student policy book.

Satisfactory Progress Standards

Each student is expected to make satisfactory progress toward obtaining the degree or diploma he/she has declared. The cumulative grade point average is reviewed at the end of each semester to determine whether the student has made the expected progress. The minimum cumulative GPA for remaining in good standing is as follows:

<u>Attempted Credit Hours</u>	<u>Diploma</u>	<u>Degree</u>
1 - 12	1.70	1.75
12 - 24	1.80	2.00
25 - 36	1.90	
37 or more	2.00	

Academic Warning

Students whose grade point averages fall below 2.0 for any given semester will receive an academic warning. The notice of the warning will be sent to the students and their advisors. Students will be encouraged to see their advisors within the first ten days of the following semester.

Academic Probation

Students whose cumulative grade point averages fall below the Satisfactory Progress Standards will be placed on academic probation for the following semester. Students and their advisors will be notified of the academic probation.

In addition to meeting with their advisors, students on academic probation must meet with a counselor to develop a "Plan for Success" and receive a registration release prior to any registration period. Students on academic probation may register for a maximum of thirteen credit hours, unless otherwise determined by a counselor.

Academic Suspension

Students who are placed on academic probation for two semesters will be placed on academic suspension for one semester. Students on academic suspension may not register for academic classes during the period of suspension, unless otherwise determined by a counselor.

Re-enrollment after Academic Suspension

Students may re-enroll after one semester of academic suspension by contacting a counselor to update their plan for improving academic performance. Students re-enrolling after academic suspension must follow the conditions required during academic probation.

Right of Appeal

The right of appeal is granted to any student who has been suspended from Cape Fear Community College. To initiate such an appeal, follow the process outlined in the Grievance Procedure.

Academic Probation Note to Persons Attending Under the G.I. Bill

At any time a student attending school under the G.I. Bill fails to meet the required cumulative GPA, that student will be placed on academic probation for a period of one academic session. If, at the end of the probationary period, the cumulative GPA is below that required by the College, the Veterans Administration will be notified that the student has been "de-certified" for G.I. Bill payment purposes. If such a student continues to attend CFCC, the Veterans Administration will be notified when the student has achieved an acceptable cumulative GPA. Recertification by the V.A. for pay purposes will be retroactive to the starting date of the quarter in which satisfactory progress resumed.

Cheating

Cheating is any practice which gives one student a dishonorable advantage over another student engaged in the same or similar course of study. It shall include, but is not limited to, the following: securing or giving assistance during examinations or on required work; the improper use of books, notes, or other sources of information; submitting as one's own work or creation of any kind that which is wholly or in part created by another; or altering of any grade or academic record.

When a faculty member observes cheating on the part of the student, the case shall be handled in accordance with the following procedures:

1. The faculty member shall notify the student who was observed cheating that he/she will receive a grade of F on the assignment or F in the course. The faculty member, however, shall afford the student an opportunity to clarify his/her position. If the student accepts a grade of F on the assignment, the student may remain in the class.

If the student accepts a grade of F in the course, the faculty member has the option of withdrawing the student from the class, with a grade of WF.

2. The faculty member shall submit a written report of the incident stating the facts and the action taken to the Dean of Student Development within three (3) class days from the time the incident occurred.

3. A student who considers the action taken to be unfair and who desires to appeal to the Academic Subcommittee of the Judicial Board, may present to the Dean of Student Development a written request within five (5) class days from the time the incident occurred.

Right of Appeal

The right of appeal is granted to any student who has been determined to be cheating at Cape Fear Community College. To initiate such an appeal, the student must submit a written appeal to the Dean of Student Development within five (5) class days after being notified of the action. The Dean of Student Development will present the appeal to the Academic

Subcommittee of the Judicial Board within five (5) school days.

The committee will notify the Dean of Student Development of its decision. The Dean of Student Development will notify the student of the Committee's decision. The decision of the Academic Subcommittee of the Judicial Board shall be final with no further appeals.

Requirements for Graduation

To receive the Associate in Applied Science Degree, Associate in Arts Degree, Diploma or Certificate, a student must maintain satisfactory grades in all laboratory and class subjects and a cumulative grade point average of at least 2.00. (Students must earn a minimum of 25 percent of credit hour requirements at Cape Fear Community College.

Computer Competency

All CFCC graduates will possess competency in the basic use of computers. Students in programs not requiring specific computer competencies will be required to pass the Basic Computer Proficiency exercise offered through the Center for Academic Enhancement (CAE). Individual instruction is available in the CAE for students needing assistance with basic computer competencies. Results will be forwarded to Student Development and added to the students academic record prior to graduation. Students may also acquire basic computer instruction by successfully completing a computer class.

Intent to Graduate

Candidates for Spring graduation 1998 must file an Intent to Graduate form with the Admissions and Records office by December 12, 1997. Candidates for Summer graduation must file an Intent to Graduate form by May 6, 1998.

Scholastic Honors

President's List

Full time (12 or more semester hours credit) students who have earned a grade point average of 4.00 will be placed on the President's List.

Dean's List

Full time (12 or more semester hours credit) students who have earned a grade point average of 3.50 with no grade lower than a C will be placed on the Dean's List.

Honors List

Part time (less than 12 semester hours and at least four semester hours) students who have earned a grade point average of 3.50 with no grade lower than a C will be placed on the Honors List.

President's Award

Graduating students who have achieved an A average, defined as a cumulative quality point average of 4.0 are recognized each year at graduation exercises for academic excellence.

Graduation with Departmental Honors

Those members of the graduating class who have demonstrated outstanding leadership, attitude and ability will be graduated with departmental honors. Since these are departmental awards, recipients are selected by lead instructors in cooperation with appropriate faculty members.

Financial Aid

Cape Fear Community College participates in Federal, State and local programs designed to assist students and their families in meeting the rising costs of obtaining a college education. While the family is seen as the primary source for educational funds, these programs can help meet the costs.

Types of Aid Available

PELL Grant - A Pell Grant is an award to help students pay for college. PELL is awarded to those students who have not earned a bachelors degree and who demonstrate exceptional financial need as determined by the Federal Government.

Supplemental Grants (SEOG)-Supplemental Grants, like PELL, are awarded to students with exceptional financial need who have not earned a bachelors degree.

College Work Study Program-Work Study provides financially qualified students the opportunity to earn money to help pay for college expenses.

A **Stafford Loan** is a low-interest loan made to financially qualified students to help pay for college expenses. This loan must be repaid.

PLUS Loans-A PLUS loan is a loan made to qualified parents of students to help the family pay for college expenses. This loan must be repaid.

State Programs

North Carolina Student Incentive Grant Program is a grant program based on exceptional financial need.

Local Programs

Private scholarships may be available to assist with educational costs. These scholarships may be based on financial need, academic excellence or a combination of both.

Applying for Financial Aid

The free application for Federal Student Aid (FAFSA) is needed to apply for the financial aid package. This financial aid package may include PELL, SEOG, Work Study, NCSIG and loan eligibility.

The application for the federal aid programs must be mailed to the processing center and may take four to six weeks for processing. A Student Air Report (SAR) will be sent to the

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student and must be submitted to the Financial Aid Office before awards can be given out.

Verification

Federal tax returns and other income verification may be required by financial aid applicants based on information relating to the Student Aid Report.

Awards/Notification

Students will be notified by mail of the amount of their award. This award letter will list the dollar amount and the program their funds come from (example: PELL or SEOG). Students must indicate whether they accept or decline the award, sign the letter and return a copy to the Financial Aid Office by the due date on the letter before any funds will be released. Failure to return this letter could cancel the award.

Students not eligible to receive financial aid will receive a letter notifying them of their status.

Satisfactory Progress

Financial Aid students are required to maintain academic progression standards set by Cape Fear Community College and the Department of Education. Specific standards are listed in the Financial Aid Handbook.

Tuition/Fees/Books

Students who have been notified of awards can charge their tuition, fees and books up to the amount of their grants. Refunds can be picked up on the fourteenth day of class, after proof of class attendance has been submitted to the financial aid office. If there is not enough money in the award to cover all expenses the student will have to pay the balance at the time of registration or purchase of books.

Scholarships

Scholarships available as of the printing of this publication are as follows:

Cape Fear Chapter-707-AARP - A partial tuition scholarship for an Associate Degree Nursing or Practical Nursing student who is a resident of New Hanover or Pender County.

American Welding Society - Tuition scholarship for a full-time student in the Welding program.

Ava M. Hobbs Scholarship/Riverfest - Tuition scholarships for full-time Marine Technology students.

Cape Fear Section of the Instrument Society of America - A scholarship for tuition, books and fees for a second year Instrumentation Technology student.

Carolina Power and Light Company - Tuition scholarships for residents of North Carolina enrolled in a two-year technical or college transfer program.

Cotton Exchange Scholarship - Tuition scholarship for a full-time student.

Herbert T. Fisher Scholarship - Tuition scholarship for full-time students.

James Walker Nursing Memorial - Scholarship for tuition and other expenses are awarded to ADN students. Number awarded vary each year.

John P. Frandsen Memorial Scholarship (Society of Manufacturing Engineers) - A partial tuition scholarship for second year students in a program within Engineering Technology.

Lisa Gail Otis Memorial - Tuition scholarship for full-time students. The recipient must maintain at least a 2.00 GPA.

Ministering Circle Memorial Nursing Scholarship - Scholarships for tuition, books and fees for students in the Associate Degree Nursing program.

National Restaurant Association - A scholarship for tuition, books and fees for students in the Hotel and Restaurant Management program.

New Hanover Regional Medical Center Auxiliary, Inc. - Partial tuition scholarship for a student in the Practical Nursing program.

North Carolina Community College Scholarship Program - Full-time and part-time scholarships. Students must be North Carolina residents and maintain a GPA at or above the level required for graduation.

Olde Point Garden Club - Tuition scholarship for a student in Marine Technology.

Pioneer Service Roofing and Sheet Metal Company Scholarship - Tuition scholarship for students enrolled in the building trades.

Southern Bell Telephone and Telegraph Community College Scholarship - A tuition scholarship for full-time students who must maintain a GPA at or above the level required for graduation.

Wachovia Bank and Trust Company Technical Scholarship - A scholarship for a second year student in a two-year technical program.

Wilmington-Cape Fear Home Builders Association - Scholarships for full-time students in the Light Construction program.

Wilmington Cape Fear Rotary Club - The Club selects recipients.

Wilmington Machinery Scholarship - A scholarship for tuition, books and fees.

Wilmington Women's Club - Scholarships for Associate Degree Nursing students.

Endowed Scholarships

(scholarships are needs-based unless otherwise noted):

Deborah G. Britt Memorial Scholarship - (Endowment still developing-proceeds not available at this time.)

William A. Clark Memorial Scholarship Fund - Tuition scholarship for a full-time student with career goals to enter the legal profession.

Dr. Hubert A. Eaton, Sr. Academic Scholarship Fund - A scholarship for tuition, general fees, parking fees and books for a full-time student.

Efson, Inc. Scholarship Fund - (Endowment still developing-proceeds not available at this time.)

Forty & Eight of the American Legion Registered Nursing Scholarship - Tuition scholarships open to Registered Nursing students at CFCC who have been residents of Brunswick, Columbus, New Hanover or Pender Counties for a minimum of five years.

Interroll Corporation Academic Scholarship Fund - (Endowment still developing-proceeds not available at this time.)

Wilbur W. Kirk Scholarship - Tuition scholarship for a full-time, second year Marine Technology student.

Leslie-Locke Scholarship Fund - Tuition scholarship for a student in a diploma or degree program. Employees and children of Leslie-Locke will be given first priority.

Tabitha Hutaff McEachern Academic Scholarship Fund - Scholarships for tuition, general fees, parking fees and books for full-time students.

Jessie Harper Newbold Memorial Fund - Scholarship for tuition, general fees, parking fees, and books for Licensed Practical Nursing students.

Peoples Savings Bank, SSB Scholarship Fund - One annual scholarship for a student in the Light Construction program and one two-year scholarship for a student in a Business program.

Ratcliff-Richardson Academic Scholarship - (Endowment still developing-proceeds not available at this time.)

Joseph M. & Barbara S. Schwartz Academic Scholarship Fund - A scholarship for tuition, general fees, parking fees and books.

George H. West Memorial Scholarship Fund - A scholarship for tuition, general fees, parking fees and books.

Wilmington Business & Professional Women's Scholarship Fund - A scholarship for tuition, general fees, parking fees and books for a student preparing to develop a business or professional career.

Scholarship/Loan Fund:

River Enterprises, Inc., Scholarship/Internship Program - An annual fund established to provide financial assistance to full-time students in the Hotel and Restaurant Management program.

Veterans Affairs

The educational benefits available under the G.I. Bill are administered by the Veterans Administration which is the final authority for determining eligibility. These benefits are not only available to eligible veterans, but also to the spouses and children of certain categories of living and deceased veterans, and to certain active duty military personnel, reservists and members of the National Guard.

Prospective students who believe they may be eligible for G.I. Bill benefits should contact the Veterans Affairs Office at the school.

Vocational Rehabilitation

This is a program operated through the Division of Vocational Rehabilitation in cooperation with the North Carolina Department of Administration. The Division finances such services as are necessary to enable a physically or mentally employment-handicapped person to become self supporting. If a prospective student has a physical disability or is limited in his/her activity because of a disability, he/she should contact the nearest Division of Vocational Rehabilitation Office. The Division Office for North Carolina is located at 709 Market Street, Wilmington, NC.

Expenses

Tuition

Tuition is established by the North Carolina State Legislature and is subject to change without prior notification.

Tuition is due and payable on the day of registration. Any deferred payment or exceptions must be approved by the Chief Fiscal Officer. If tuition is a major factor in the students determination to attend CFCC, the student should contact the Financial Aid office as soon as possible.

Payments can be made by cash, check, MasterCard or Visa. Students must bring credit cards to the Business Office to charge payments.

Activity Fee

A nonrefundable activity fee is charged to all curriculum students for the Fall and Spring semesters. This fee is due and payable on the day of registration. The maximum fee charged is \$18.00 per academic year.

Funds collected from activity fees are used to support the costs of student publications, athletics, and social activities sponsored by the Student Government Association.

Student Identification Card Fee

A fee of *\$1.00 will be charged for a photo I.D. card to all curriculum students. The photo I.D. card is valid for two consecutive years and will be validated each academic session. This card must be presented by the returning student, at the time of registration, or he/she will be required to purchase a new card.

Parking Permits

A parking permit may be purchased for *\$8.00 when a student is paying for his/her tuition and fees in the Business Office. The parking permit is valid August through August.

Insurance

The College provides student accident insurance for curriculum students at no charge to the student. This is subject to approval by the Board of Trustees each fiscal year.

Nursing students are required to purchase professional liability insurance. The cost of this insurance is presently *\$15.00.

Students may purchase health insurance; the enrollment forms and fee information are available in the Business Office.

Paramedic students are required to purchase paramedic professional liability insurance. The cost of this insurance is presently *\$32.85.

Textbooks and Hand Tools

Students are expected to purchase textbooks which are usually available from the school bookstore at the beginning of each academic session. Although not required in all courses, students are encouraged to buy hand tools, generally required for apprentices in the area of their training. The bookstore does not have a charge or credit system; therefore, books and tools must be paid for at the time of purchase.

Bookstore

The CFCC bookstore is located on the first floor of the M.J. McLeod building. The bookstore provides textbooks, supplies and other collegiate materials. Hours of operation and policies governing textbook refunds and buy-backs are posted in the bookstore.

Refund

A pre-registered curriculum student who officially withdraws from any/or all classes prior to the first day of the College's academic session will be eligible for 100 percent tuition refund. Fees are non-refundable.

A 75 percent refund will be made if the student officially withdraws during the period starting from the first day and ending on the 20 percent day of the academic session. A student is not officially withdrawn until he/she processes a formal

withdrawal form with the Admissions and Records office. The effective date of withdrawal is the day the Admissions and Records office receives the form.

Return Check Guidelines

Tuition payment made with a check returned by the bank will be considered nonpayment of tuition. Students will lose their classes or will not be able to attend classes until full restitution is made. Absences incurred due to nonpayment of fees will be counted in accordance with the College's attendance policy.

Transcript of Record

Upon written request of the student, a transcript of credits earned at Cape Fear Community College will be sent to other colleges and/or industry. The first transcript request is free of charge; each additional transcript request will cost *\$2.00.

Graduation Fees

Fees for graduation are not included in the activity fee. The cost for caps and gowns are paid by the student directly to the company representative from whom they are being ordered. At present the cost is approximately \$22.00, but is subject to change.

(*Applicable fees at time of printing are subject to change without notice.)

Institutional Indebtedness

No student will be permitted to graduate nor will a transcript be issued until all financial obligations to the College are satisfied.

Personnel in the Armed Services

Any active duty member of the armed services who is admitted as an out-of-state student will be charged the out-of-state rate but will pay the in-state rate with the difference being waived.

Any dependent relative of a member of the armed services who is abiding in this State incident to active military duty while sharing the abode of that member shall be eligible to be charged the in-state tuition rate.

Student Activities

Extra-curricular activities are a very important part of the total educational program at Cape Fear Community College. Student activities is an integral part of the fulfillment of the College's mission by providing a variety of activities that enrich students lives. The goals of these activities are to accommodate student diversity in backgrounds, abilities, interest, and career goals; enhance academic success; and promote diplomacy, unity, self discipline, physical and emotional well-being, and leadership skills.

Athletics and Intramural Activities

College athletics may include basketball, softball, golf, tennis, soccer and volleyball depending on student interest and facilities availability. Individuals participating in college athletics must have school insurance, be taking five (5) curriculum semester hours or more, and be in good academic standing.

College athletics enrich the academic, social, self discipline, competitiveness and leadership abilities of the student.

The goals and objectives of intercollegiate athletics are listed below.

Goals:

- To enhance academic success of student athletes

- To provide opportunities for participation in competitive college sports

- To promote the development of self discipline and leadership skills

Objectives:

- Monitor the academic grade point average of student athletes

- Develop and monitor sport activities based on student interest as gleaned from Student Interest surveys

- Monitor the retention and graduation rates of student athletes

Social Activities

The social development of the student is a very important phase of the total educational program at Cape Fear Community College. Under the sponsorship of the SGA, social events include dances, field days, cookouts and various other student body activities.

CFCC Clubs

The following clubs are recognized by CFCC:

- Alpha Chi Sigma (PTK)
- Bible
- Collegiate Secretaries International
- Criminal Justice
- Drafting and Design
- Drama
- Industrial Electricity
- Instrumentation
- Machining Technology
- Multi-Cultural
- NC Association of Nursing
- Paralegal
- Philosophy
- Republicans
- Spanish

Phi Theta Kappa

The Phi Theta Kappa International Honor Society encompasses the upper ten percent of all students enrolled in the two-year college system. Alpha Chi Sigma is the CFCC Chapter of Phi Theta Kappa. Membership in Alpha Chi Sigma is extended by invitation only. To be eligible, a student must be enrolled in a regionally accredited institution offering an associate degree program. Full-time (12 credit hours) students must have completed at least 18 hours of course work leading to an associate degree and grade point average (GPA) of 3.5. Part-time (fewer than 12 credit hours) students must have completed 18 hours and have a GPA of 3.6 and must enjoy full rights of citizenship.

Student Ambassadors Program

Each year the College selects student ambassadors to represent CFCC at various college functions and special events. These students are selected based on their leadership ability, academic achievement, college involvement and their desire to assist other students and represent the College. The major purpose of the program is to teach students the importance of responsibility and teamwork, raise self-esteem and create a well rounded college experience.

CFCC Student Organizations and Clubs

Student organizations and clubs that help fulfill the mission of CFCC, accommodate student diversity, enhance academic success, promote diplomacy, unity, discipline, physical/emotional well-being, and develop leadership skills are an important part of Cape Fear Community College.

New student organizations and clubs may be approved by the Dean of Student Development, in consultation with the Director of Student Activities, after written application is submitted to the Director of Student Activities. The written application must state the proposed name of the organization, the names of all students proposing the organization, the name of at least one faculty/staff member (full-time CFCC employee) who has agreed to serve as a sponsor to the group, and a complete description of the proposed activities of the group including, but not limited to, (1) purpose statement, (2) goals, (3) activity schedule, and a (4) complete description of the organization's proposed activities.

Once a student organization or club is approved, each individual activity must be individually approved by the Director of Student Activities before it is undertaken. Student Activity applications are available from the Director of Student Activities. It is the singular responsibility of the proposing organization to provide accurate and complete descriptions of individual activities of the organization. Inactive student organizations and clubs may be disbanded at the College's discretion.

The College reserves the exclusive right to immediately suspend any activity that is not being conducted in exact accord with the College-approved description of the activity or any activity that substantially disrupts or materially interferes with the work, discipline, and/or educational activities of the Col-

lege (e.g., by violating reasonable College rules and regulations, interrupting classes or other College programs or activities, or inciting or producing imminent violence or other lawless action on College premises,) as adjudged by designated College officials. Moreover, the College reserves the exclusive right to disband any student organizations or clubs that: (1) conduct such inappropriate and/or unapproved activities; and (2) fail to follow College guidelines.

Guidelines for Display or Distribution of Handbills, Posters, or Other Materials by Student Clubs, Community and Non-Profit Organizations, and Individuals

The College would like to provide educational opportunities to its students and others in the College community and believes that public expression through display or distribution of handbills, posters, or other materials can play an important role in accomplishing this goal. The College also believes firmly in its obligation to College employees and its students to provide an environment that is conducive to learning. Public expression that enhances this environment by affording students and others in the College community exposure to a variety of ideas is encouraged. Subject to the terms and conditions set forth in these procedures, to any rules or regulations established by the College pertaining to display or distribution, and to other applicable laws, rules, and regulations, an organization or individual may display or distribute handbills, posters, or other materials that are aimed at providing information to students.

The following guidelines apply to materials posted on the campus of Cape Fear Community Colleges, regardless of the source of those materials. They include:

- Posted information shall not contain obscene or libelous information or other information that is not protected by law.
- Information will not be placed over existing notices. Outdated material will be removed to make room for timely information.
- All event items must be removed by the sponsoring organization immediately following the event.
- All notices to be posted in stairwells, at doorways, or in other college locations not otherwise permitted in these guidelines, require approval by the Dean of Student Development five work days (Monday through Friday) in advance of the proposed posting.
- Due to extreme space limitations, information to be posted by student groups, community groups, or individuals in areas other than those reserved for Phi Theta Kappa and academically-oriented student clubs will be posted for a maximum of two weeks and must be no larger than 8.5" x 11".
- Items not approved in the prescribed manner will be removed and discarded.
- Placement of information on vehicles of others on campus is prohibited.
- The College reserves exclusive rights to re-arrange materials to accommodate the display of additional materials, to establish limits on the amount of information organizations may display, and to deny additional requests when all designated space is being used.

- Failure by any organization or individual to abide by CFCC guidelines will be grounds for denying additional requests from the same organization or individual.

The College will grant access by an eligible organization or individual to areas of College premises designated for public expression on a neutral basis, in accordance with these procedures. A grant of access to any particular organization or individual does not mean that the College endorses the beliefs, practices, or views expressed by that organization or individual, and outside organizations and individuals are expressly prohibited from stating, implying, or suggesting in any manner that they are endorsed by or associated with the College or that any publication, announcement, or other form of expression provided by the organization or individual has been approved by or is associated with the College. Areas of College premises designated for public expression will not be denied to any organization or individual on the basis of the content of information sought to be provided by or the convictions or affiliations of that organization or individual.

Given the varying nature of different organizations and the wide-range of notices that individual students and/or college personnel may wish to post on occasion, additional guidelines apply to certain types of organizations and individuals, as noted in the following information:

Phi Theta Kappa

Space has been designated for displays of the Alpha Chi Sigma chapter of Phi Theta Kappa, CFCC's student honor society, and displays are subject to approval of chapter officers and faculty/staff sponsors.

Academically-Oriented Student Clubs

Academically-oriented student clubs that are directly linked in name, purpose, and practice to specific instructional disciplines or programs offered at CFCC (currently approved clubs include Collegiate Secretaries International, Criminal Justice, Drafting and Design, Industrial Electricity, Instrumentation, Machining Technology, NC Association of Nursing, Paralegal, Philosophy, and Spanish) may post discipline-related displays and materials, including announcements of upcoming club meetings, on College bulletin boards in their respective academic departments, subject to advance approval of faculty sponsors, department heads and the appropriate division Deans.

Other Student Clubs and Community and Non-Profit Organizations

Other student clubs and community and non-profit organizations may distribute or display information relating to their approved purpose, including announcements of upcoming meetings, in accordance with the following guidelines:

- All items displayed by other student clubs in this category must be approved by the faculty/staff sponsor and the Dean of Student Development. Items submitted by community and non-profit organizations must be approved for display by the Dean of Student Development. The Dean of Student Development will consider all requests for display and distribution in

light of the availability of areas that are designated for such purposes and the availability of space for the proposed display or distribution within any designated area(s). Requests for access to distribute or display publications will be reviewed and granted on a first-come, first-serve basis. The College will communicate its approval or disapproval of access for distribution or display and any conditions of access to the requesting organization or group, generally within three business days after the request is submitted. Access for display or distribution of materials will not be provided if previously approved requests for access to display or distribute materials have resulted in space being unavailable for additional displays or distributions within any designated area(s). Approved materials may be displayed on the designated bulletin board located near the elevator on the first floor of the McLeod Building. No one club may use a disproportionate amount of the allotted space unless other clubs do not elect to display information.

- Community organizations and individuals may display approved notices on the designated bulletin board located on the first floor of the McLeod Building beside room S118.

Appeal

Any organization or individual who believes that the opportunity to display or distribute handbills, posters, or other materials has been denied improperly may appeal the denial by providing written notice of the appeal to the Dean of Student Development within three business days of the date on which the organization or group has been advised of the denial. Information supporting the appeal (which may include a written statement or, at the election of the individual or group, a conference with the College's Judicial Board) also should be provided. As a general rule, the Judicial Board will make a final decision within five business days of receiving the appeal and any written information or, if a conference with the organization or individual has been scheduled, after conducting the conference.

Student Publications

The Sea Devil and The Informer, written and edited by students, are supported by student activity fees. These publications are supervised by an academic advisor, the Director of Student Activities, and the Dean of Student Development. The editorial freedom afforded to student editors also involves parallel responsibilities that are governed by canons of responsible journalism, such as the avoidance of libel, indecency, vulgarity, undocumented allegations, attacks on personal integrity, and the techniques of harassment and innuendo.

The President has the authority to determine responsible journalism and to prohibit the publication of any material in violation of the canons of responsible journalism.

Student Government Association

The Student Government Association (SGA) is the official organization authorized by the administration to represent all students at Cape Fear Community College. The SGA is a democratic organization and as such elects officers each year. The State Board of Community Colleges, the CFCC Board of Trustees, and the administration, faculty, and staff fully sup-

port the SGA. This support is most visible in the office of the SGA President who, upon election to that office, automatically becomes a member of the Board of Trustees and the College Council. Additionally, students have SGA representatives on standing college committees. These committees are charged with annually reviewing and recommending changes to the College.

The Student Government Association is a very active organization; it is the voice of the student body and has paved the way for good lines of communication between students and administration. Students receive practical experience in responsible citizenship through participation in a program of self-government.

The SGA is governed by its Constitution and Bylaws. Copies of these documents are available in the SGA office.

Alumni Association

Although alumni associations are thought to be made up primarily of former students and friends, the CFCC Alumni Association encourages students to participate while still attending school. Information about the CFCC Alumni Association is available in the office of the Director of Student Activities.

General Information

Change of Name/Address

If a student should have a name or address change while enrolled at the College, he/she should fill out an INFORMATION UPDATE FORM in the Admissions and Records Office.

Children on Campus Policy

Children cannot be taken into classrooms, laboratories or shops unless authorized by College personnel. Responsible adults will be expected to remove disruptive children immediately. Children cannot be left unattended on campus including the Learning Resources Center, the cafeteria, lounge areas, registration sites, administrative offices or parking lots.

Failure to comply with this policy will lead to disciplinary action as outlined in the College Catalog, Student Handbook and Faculty and Staff Handbook. Visitors violating this policy will be notified of the violation and continued violation will result in the individual being asked to leave campus.

Dress

CFCC invites prospective employers and industry representatives on campus throughout the academic year. Therefore, while students may dress casually, they are encouraged to dress neatly and cleanly. Students are required to wear shoes to help ensure safety on campus and/or college facilities.

Where special dress or safety devices are required by the College, North Carolina Community College System, regulations, or public law, students will be expected to fulfill those requirements.

Food Services

Hot food and snacks are available in the student lounge which is located on the first floor of the M. J. McLeod (S) Building from 7:30 AM to 9:00 PM Monday through Thursday; 7:30 AM to 8:00 PM Friday; and 9:00 AM to 1:00 PM Saturday.

Game Rooms

Billiards, video games, and table tennis are located in the cafeteria area on the first floor of the M.J. McLeod (S) Building and are open daily during normal school hours.

Graduation Needs

Orders for caps, gowns and class rings will be accepted by a company representative during announced dates. Students who anticipate graduating at the close of Spring or Summer academic sessions will be provided a limited number of commencement announcements.

Housing

The College does not have housing facilities. However, upon request and if known, school officials will provide to students information concerning available housing. Students are advised to have a clear understanding with landlords regarding all rental and/or lease agreements.

Lost and Found

The Admissions and Records Office will accept articles found on campus and, if not claimed, store them for six months. Articles not claimed within six months will be given to a non-profit organization.

Parking

The student parking lots are located two blocks north of the Wilmington campus, diagonally across from WWAY television station. The parking lots will accommodate 486 vehicles.

Handicapped parking is provided at each of the Wilmington campus buildings. Behind the Galehouse Building there are three wheelchair and nineteen handicap/special parking spaces; the Electronics Technology Center has two spaces; the Burnett Building has two spaces. Disabled persons wishing to park behind the Galehouse Building should stop at the parking attendants station for assistance.

Telephones

Pay telephones are available for students to use at any time. Students are requested not to use phones located in college offices unless it is an emergency.

Incoming calls for students will be honored only in the case of an emergency.

Student Expectations, Rights, and Responsibilities

Student Records

CAPE FEAR COMMUNITY COLLEGE RESPONSIBILITIES UNDER THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974 (THE BUCKLEY AMENDMENT)

Under the Family Educational Rights and Privacy Act of 1974, the rights of the student and the responsibilities of the institution concerning the various types of student records maintained by the institution are established. Consistent with this legislation, Cape Fear Community College establishes the following policy to ensure compliance. Failure to comply with standards prescribed in the Act could jeopardize federal funding received by the institution and its students.

Rights of Students

In compliance with the law, an individual becomes a student when he/she registers at the College. Upon reaching age 18 or attending an institution beyond the high school level, the student has the right to view his/her own school or college records. These records include the academic transcript of the College, post-secondary transcripts, high school transcripts, and other documents maintained as part of the students permanent file with the exception of confidential letters of recommendation. All permanent academic records are housed and maintained by the Director of Enrollment.

CFCC requires written authorization from the student prior to release of academic records. A minimum of 48 working hours will be required by the College to access the requested academic information. The student may inspect, copy, and review his/her records in the Director of Enrollment Managements Office. There may be a charge for copies.

Rights of Parents

Parents of a child who is under the age of 18 and has never attended an educational institution beyond high school level has the right to inspect and review that child's academic records. After a student reaches the age of 18 or enters a post-secondary institution, the parent will be denied access to the students academic record unless the student gives written consent. The College assumes that all students are independent adults attending an institution designed for adult education. Parents do have the right to review the academic records of their child if they are claiming the child as an income tax deduction; however, they must show proof of the claim.

Rights of Faculty

The faculty of the College has a legitimate educational interest

in a student's academic records. Therefore, access to those records is authorized by the institution. Along with this access comes certain obligations and responsibilities.

A faculty member shall not access educational records of any student for which he/she does not have a direct advisory responsibility. Those with direct advisory responsibility include the current instructors of the student, the student's faculty advisor, and the appropriate department head and division chair. A faculty member not professionally associated with a student shall not access educational records of the student without the written consent of the student.

A faculty member shall not disclose any information from a student's record to a third party (i.e., other students, other faculty members, employers, etc.) without the written consent of the student. Parents of the student do not have special access rights and should not be given information without the student's written consent.

A faculty member shall be responsible for the security of all academic information in his/her possession. These records must not be accessible to other students and unauthorized personnel.

A faculty member shall refrain from disclosing academic information by phone without the expressed written consent of the student.

Rights of Administration

Student Development and specifically the Director of Enrollment Management's Office, has the responsibility of maintaining and safeguarding the academic records of all students of the College. Consistent with this responsibility, the personnel of Student Development will access student records as needed. However, these individuals bear the responsibility for ensuring that no unauthorized disclosure of student academic information occurs without the expressed written consent of that student.

The President, Vice-President and Deans of the College may access student records when needed to facilitate the student's educational pursuit.

Educational records of a student will not be accessed for employment decisions without the expressed written consent of the student. Information from student academic records may be shared in aggregate for educational research purposes.

Directory Information

Directory information includes name, major field of study, full time/part time enrollment, the most recent college attended, dates of enrollment, and degrees and awards received.

Students have the right to withhold disclosure of any directory information by completing a request for non-disclosure in the Director of Enrollment Management's Office. Requests for non-disclosure must be filed annually. The College assumes

that a student's failure to file a request for non-disclosure indicates approval for disclosure.

The complete text of The Buckley Amendment is available for review in the Office of the Director of Enrollment Management.

Conduct

It is expected that at all times the student will conduct himself/herself as a responsible adult. Participation in any activity which, in the opinion of the administration, disrupts the educational process or functioning of the College may result in disciplinary action. Specific violations of conduct include, but are not limited to the following:

- a. destruction of school property
- b. stealing
- c. cheating
- d. gambling
- e. use of profane language
- f. engaging in personal combat
- g. possess or carry, whether openly or concealed, any weapon on campus; the only exception to this directive is in the case where training or job requirements of the students or employee requires that such be carried
- h. possession and/or use of alcoholic beverages
- i. possession and/or use of any drug as defined under the North Carolina Controlled Substance Act, G.S. 89-90 through G.S. 90-94

Violation of these rules of conduct will not be tolerated in or on any part of the campus, its satellites, equipment it operates, or wherever its employees or students are required to be while performing their duties as employees or students. Any violation of these standards of behavior may result in dismissal from the College.

Additional classroom rules will be designated by instructors or supervisors and must be followed by all.

Any person observing conduct violation(s) should immediately contact the Dean of Student Development.

Conduct Probation and Suspension

Any student whose conduct becomes unsatisfactory may be placed on conduct probation; however, a student is subject to immediate suspension if deemed necessary by the Dean of Student Development. Any misconduct after a person is placed on conduct probation may result in prompt suspension.

Right of Appeal

The right of appeal is granted to any student who has been suspended from Cape Fear Community College for conduct violations. To initiate such an appeal, follow the process outlined in the "Grievance Procedure" section of this handbook.

Weapons on Campus

It is unlawful for any person to possess or carry, openly or concealed, any weapon on campus. The only exception made to this directive is in the case where training or job requirements of the student or employee requires that such a weapon be carried.

Crime Awareness and Campus Security Policy

I. Cape Fear Community College adheres to the following Crime awareness and Campus Security Policy.

A. In case of an accident, illness, criminal actions, and other emergencies, the Dean of Student Development must be notified immediately. (If any of the above situations occur at any campus site (example: Pender County Satellite) the appropriate Director of that location must be notified.

B. The Director of Institutional Services or the designee is responsible for security and access to all campus facilities.

C. Campus law enforcement is handled by a local security agency. When further action is necessary they seek assistance from city police or county law enforcement.

D. Violations involving the possession, use, and sale of alcoholic beverages, possession and/or use of any drug as defined under the N.C. Controlled Substance Act will not be tolerated in or on any part of the campus, its satellites, equipment it operates, or wherever its employees or students are required to be while performing their duties as students or employees. Any violations of these standards of behavior may result in dismissal from the College.

E. All incidents (criminal and security) must be reported to the Dean of Student Development (day) or Duty Administrator (night) and/or campus security guards.

F. All incidents (crime and security) must be reported on the appropriate form and turned in to the Dean of Student Development.

II. Security Operations

A. Cape Fear Community College (CFCC) has a contract with a local, professional security firm to provide security for the Wilmington campus as well as off campus facilities (example: Roland-Grise) when classes are being held or when it is requested by sponsors of special events. An on-site security system is in place at both Pender County facilities. These systems are tied into local police departments.

B. The guards have portable radios and are constantly patrolling. Should any event requiring security occur, the guards are to contact the City of Wilmington Police (station is one-half block away) and then try to control event until police arrive. Events are reported to the appropriate person-

nel after the situation is under control. Security escorts are available to walk students, faculty and staff to their car at night. The switchboard operator, located on the second floor of the McLeod Building, will arrange escorts.

III. Information concerning crime awareness and campus security procedures and practices are disseminated to students and employees through the following:

- A. Faculty, staff and student handouts.
- B. Catalog and Student Handbook.
- C. Orientation.

IV. Information data on crime and security violations will be collected starting August 1, 1992. Results of the data will be reported and available for distribution to interested parties.

Crime Data

WILMINGTON CAMPUS

<u>Occurrence</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Murder	0	0	0	0	0
Forcible Sexual Offense	*	0	0	0	1
Non-forcible Sex Offense	*	0	0	0	0
Robbery	0	0	1	0	0
Aggravated Assault	0	0	0	0	0
Burglary	0	0	0	0	0
Motor Vehicle	0	0	0	0	0

*CRIME DATA 1992

<u>Occurrence</u>	<u>January 1992 - June 1992</u>
Rape	0

<u>Occurrence</u>	<u>July 1992 - December 1992</u>
Forcible Sexual Offense	0
Non-forcible Sex Offense	0

BURGAU CAMPUS

<u>Occurrence</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Murder	0	0	0	0	0
Forcible Sexual Offense	0	0	0	0	0
Non-forcible Sex Offense	0	0	0	0	0
Robbery	0	1	0	0	0
Aggravated Assault	0	0	0	0	0
Burglary	0	0	0	0	0
Motor Vehicle	0	0	0	0	0

HAMPSTEAD CAMPUS

<u>Occurrence</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
Murder	NA	NA	0	0	0
Forcible Sexual Offense	NA	NA	0	0	0
Non-forcible Sex Offense	NA	NA	0	0	0
Robbery	NA	NA	0	0	0
Aggravated Assault	NA	NA	0	0	0
Burglary	NA	NA	0	0	0
Motor Vehicle	NA	NA	0	0	0

Judicial Board

Cape Fear Community College supports students' constitutional right to due process. The Judicial Board is the vehicle to insure the right of appeal.

The Judicial Board will consist of eleven (11) representatives from all areas of the College - faculty, staff, students and administration. The entire board will hear appeals concerning

academic suspension, conduct suspension and charges of discrimination and/or denial of service on the basis of race, color, national origin, age, religion, handicap or sex.

The Judicial Board's subcommittees will act on other categories of student appeals. The subcommittees, areas of responsibility, and composition are listed below.

Academic Subcommittee of the Judicial Board

The subcommittee will hear appeals in the matter of cheating and grades. The subcommittee consists of two (2) faculty, three (3) students and one (1) Student Development staff. One faculty member is to be chosen from each of the academic areas - vocational, technical and college transfer. The committee will select its chairman from the faculty membership.

Financial Aid Subcommittee of the Judicial Board

The subcommittee will hear appeals concerning suspension from the College's financial aid programs. The committee will consist of one (1) representative from the following areas - Fiscal Services, Student Development, faculty, and student. The chairman will be selected by the committee.

Residency Status Subcommittee of the Judicial Board

The subcommittee will decide matters of residency status for tuition purpose. The committee will consist of one (1) representative from each of the following areas - Student Development, Fiscal Services, and the student. The committee will select its chairman.

Grievance Procedure

The right of appeal is granted to any student who has been placed on academic suspension, conduct suspension or feels he/she has been discriminated against or denied service on the basis of race, color, national origin, age, religion, handicap or sex.

To initiate such an appeal, the suspended student must submit a written appeal to the Dean of Student Development within five (5) class days after being notified of the suspension. The Dean of Student Development will present the appeal to the Judicial Board within five (5) class days of receipt of the written appeal. The Dean of Student Development will notify the student of the Judicial Board's decision. The decision of the Judicial Board shall be final with no further appeals.

Written Student Complaint

As a matter of practice, CFCC subscribes to the philosophy that student complaints are best resolved on an informal basis. When a student has a complaint he/she should attempt to resolve concerns with college personnel having responsibilities directly at the source of the complaint. When informal procedures do not resolve concerns, written student complaints should be sent to the Dean of Student Development who will determine the appropriate college personnel to review the complaint. The student should receive written acknowledgment of the complaint from the Dean of Student Development within five (5) working days.

The complaint will be reviewed and a collaborative effort will be made to resolve the complaint. Within twenty (20) working days of receipt of the complaint, the student will receive notification of the resolution of the complaint, or of the College's position on the complaint.

Sexual Harassment

Discriminatory personal conduct, including sexual harassment toward any member of the College, is a violation of both State and Federal law and school policy and cannot be tolerated in the College community.

All members of this school community are expected and instructed to conduct themselves in such a way as to contribute to an atmosphere free of sexual harassment. Sexual harassment of any employee or student by any other employee or student is a violation of the policy of this school and will not be tolerated.

Requests for sexual favors and other unwelcomed verbal or physical conduct of a sexual nature by any employee or student constitutes sexual harassment when:

submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment, academic or student status, or

submission to or rejection of such conduct by an individual is used as the basis for employment decisions affecting that individual, or

such conduct has the purpose or effect of interfering with an individual's performance or creating an intimidating, hostile, or offensive environment in the workplace or the classroom.

Any student who believes that he or she has been subjected to sexual harassment in violation of this policy should make a confidential complaint to one of the Student Development counselors. If this is not feasible, the student may take the complaint to the Dean of Student Development.

Evacuation of Buildings

An evacuation diagram is located on each floor and in each room of every building. The primary route for evacuating a building is indicated by a solid red line. If, for any reason, the primary route is blocked, use the secondary escape route indicated by a broken red line on the diagram. All occupants will follow this procedure EXCEPT HANDICAPPED PERSONS: CFCC staff will make provisions for all handicapped persons to be evacuated from the building.

Emergency Evacuation

Everyone must exit the building when the fire alarm sounds. IT IS NOT AN OPTION TO REMAIN IN THE BUILDING. Treat all alarms as the real thing.

Student/Employee Drug and Alcohol Policy

Cape Fear Community College is committed to providing an educational atmosphere that is free of substance abuse and encourages healthy and safe lifestyles. Listed below is information on Cape Fear Community College's policy on drugs and alcohol, health risks involved in drug/alcohol abuse, North Carolina's laws regarding drug use, and community resources pertaining to substance abuse.

The use and abuse of drugs and alcohol are subjects of immediate concerns in our society. These problems are extremely complex and ones for which there are no easy solutions. From a safety perspective, the users and/or abusers of drugs or alcohol may impair the well-being of all employees, students, and the public at large, and may result in property damage to the College. Therefore, in compliance with the Federal Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act Amendments of 1989, it is the policy of Cape Fear Community College that the unlawful use, possession, distribution, manufacture, or dispensation of a controlled substance or alcohol, is prohibited while on College premises, the College workplace, or as part of any College sponsored activity. Any student violating this policy will be subject to disciplinary action up to and including termination or expulsion and referred for prosecution.

1. Cape Fear Community College does not differentiate among unlawful users, sellers, or pushers of drugs or alcohol. Any employee or student who uses, possesses, sells, gives, or in any way transfers alcoholic beverages or a controlled substance is subject to disciplinary proceedings by the College, and referred for prosecution.

2. The term controlled substance means any drug listed in CFR part 1308 and other federal regulations, as well as those listed in Article V, Chapter 90 of North Carolina General Statutes. Generally, these are drugs which have a high potential for abuse such as: Marijuana, Cocaine, PCP, Heroin, and Crack among others. They also include legal drugs that are not prescribed by a licensed physician. The term alcoholic beverage includes beer, wine, whiskey and any other beverage listed in Chapter 188 of the General Statutes of North Carolina. Persons within the College community are responsible for knowing about and complying with the Cape Fear Community College Drug/Alcohol Policy.

3. Any employee or student who unlawfully possesses, uses, sells, or transfers alcoholic beverages or illegal drugs to another person; or who is convicted of violating any criminal drug or alcoholic beverage statute while in the workplace, on College premises, or as part of any College sponsored activity, will be subject to disciplinary action by the College up to and including termination or expulsion, and referred for prosecution. Specifically, any such person convicted of a felony, or a misdemeanor which results in an active prison sentence will, if a student, be expelled, or if an employee, be terminated from employment (subject to existing disciplinary policies appli-

cable to state or federal law which may apply to employees). Other misdemeanors or convictions will be evaluated on a case-by-case basis and the specific penalties may range from written warnings with probationary status to enrollment expulsions and employment discharges. The College may also require the employee or student to successfully complete a drug abuse treatment program as a precondition for continued employment or enrollment. Persons charged with illegal drug/alcohol involvement may be suspended pending any legal proceedings if, it is determined by the President, or his designee, that the persons continued presence within the College would pose a serious and immediate danger to the health or welfare of other persons within the College.

4. Each employee or student is required to inform the Personnel Director or the Dean of Student Development, respectively, in writing within five (5) days after a conviction of any criminal drug or alcoholic beverage control statute where such violations occurred in the College workplace, on College premises, or as part of any College sponsored activity. A conviction means a plea of or a finding of guilt (including a plea of nolo contendere) and the imposition of a sentence by a judge or jury in any federal or state court.

For those students or employees receiving or working under a federal grant, the College must notify the United States governmental agency from which a grant was made within ten (10) days of receipt of such notice from the grant employee, or otherwise after receiving actual notice of a criminal drug conviction. Appropriate disciplinary action will be taken by the College within 30 calendar days from the receipt of such notice. The law requires that all employees abide by this policy as a condition for continued employment on any federal grant.

Community Services

Aids Hotline	343-6653
Alcoholics Anonymous	762-1230
Ambulance, Fire, Police, or Sheriff	911
Cocaine Hotline	1-800-222-0828
Columbia Cape Fear Memorial Hospital	452-8100
Crisis Line	392-6936
Dept. of Social Services	341-4700
Domestic Violence Shelter & Service	343-0703
Health Department, NHC	343-6500
Human Relations Commission, NHC	341-7171
Missing Children Help Center	343-6559
Narcotics Anonymous	1-800-234-0420
New Hanover Regional Medical Center	343-7000
Rape Crisis Center	392-6936
Southeastern Center	251-6440
The Oaks	343-7787
Wilmington Treatment Center	762-2727
YMCA	251-9622
YWCA	799-6820

For referrals to a community service agency, see a counselor in Student Development.

EXTENDED SERVICES

Continuing Education Department

General Course Information

CFCC provides training in many areas through its Continuing Education Department programs. Classes are held at the Wilmington downtown campus and at other locations throughout New Hanover and Pender counties. Most classes prepare individuals for employment, or upgrade workers already employed. Besides meeting economic needs, some classes help to improve the adults social and cultural standing in the community.

Training is also provided for employees of area industries and public agencies. Once a specific need has been established, classes can be offered in that area at virtually any time. Full details can be obtained by calling the office of the Dean of Continuing Education, (910) 251-5670.

Admission Requirements

Generally, any person who is 18 years of age or older, or whose high school class has graduated, is eligible for admission to Continuing Education classes. Applicants are usually admitted on a first-come, first-serve basis. Some classes have specific admission requirements. In such cases, applicants will be properly notified.

Registration and Special Information

For information concerning the current class offerings, and their locations in New Hanover county, call (910) 251-5670. For Pender County classes, CFCC Burgaw Campus, call (910) 675-1439/ 259-4966. For CFCC Hampstead Campus classes, call (910) 270-3069.

The Pender County CFCC Burgaw Campus is located in the Burgaw Industrial Park. This location is approximately five blocks south of downtown Burgaw next to Burgaw Middle School.

The Pender County CFCC Hampstead Campus is located in the former Topsail Middle School, Hampstead.

Students register at their first class meeting. The individual's Social Security Number is required for registration. Course cost (tuition) will usually be \$35.00 plus the cost of any required text(s) and supplies. A high school diploma is not required for registration. Registration fees for Continuing Education Department classes are not always refundable. The Refund Policy, as set forth by the North Carolina General Assembly, follows in the next paragraph. Many classes are



FREE for N. C. citizens 65 years of age or older. However, for classes designated as self-supporting all students must pay the tuition fee and costs for required text and supplies.

Refund Policy

Please note the following Refund Policy for EXTENSION PROGRAMS, Statutory Authority G.S. 1150-5; Eff. February 1, 1976; Amended Eff. September 1, 1993; August 1, 1983; August 17, 1981; July 8, 1980.

.0203 EXTENSION PROGRAMS

(d) Registration Fee Refunds. A refund shall not be made except under the following circumstances:

(1) For classes that are scheduled to meet four times or less, a full refund shall be made upon the request of the student, if the student officially withdraws from the class(es) prior to or on the first day of the class(es).

(2) For classes that are scheduled to meet five or more times, a full refund shall be made upon the request of the student if the student officially withdraws from the class(es) prior to or in the official 30% point of the class(es).

(3) For classes beginning at times other than at the beginning of the quarter, applicable provisions as noted in Subparagraphs (d) (1) and (2) of this rule apply. For contact hour classes, 10 calendar days from the first day of the class(es) is the determination date.

IMPORTANT: Occupational extension courses are designed for the specific purposes of training individuals for employment, upgrading the skills of persons presently employed, and retraining others for new employment in occupational fields. Students repeating an Occupational Class more than two times may be charged a higher tuition fee based on actual class contact hours.

Continuing Education Program Offerings

Emergency Medical Technician Programs—For information & class schedules, call (910) 251-5681.

Emergency Medical Technician training prepares the student to perform basic patient care in a pre-hospital setting. After successful completion of the course, a state examination is required for certification.

Insurance Programs - For information & class schedules, call (910) 251-5681.

CFCC's Continuing Education Department provides continuing Education classes for Certification for Insurance Agents as mandated by the North Carolina Department of Insurance. Provider #9090.

Nurse Aide Program - For information & class schedules, call (910)251-5681.

Nurse Aide Level I - Prepares graduates to provide personal care and perform basic nursing skills for the elderly and other adults.

Nurse Aide Level II - Prepares Nurse Aides to perform more complex nursing skills.

Nurse Aide Refresher - A fifteen (15) hour Refresher Course designed for skill/competency testing of Nurse Aide employees.

Family & Adult Home Care Programs - For information & class schedules, call (910) 251-5681.

Family Care Home-Personal Care Training - A twenty (20) hour training program for aides in family care homes who perform basic personal care tasks.

Adult Care Home-Personal Care Training - A forty (40) hour training program for personal care aides in adult care homes of seven or more residents and homes for developmentally disabled adults who perform basic personal care tasks.

Electrical Contractors' Renewal Course Programs - For information, call (910) 251-5681.

The Electrical Contractors' Renewal Courses are held throughout the year. This provides Electrical Contractors the six hours of mandatory continuing education credits required to maintain a license.

Real Estate Program - For more information, call (910) 251-5689.

CFCC offers eight (8) hour Seminars designed to provide Real Estate Agents their required continuing education credits as mandated by the North Carolina Real Estate Commission. Provider #1021.

Concealed Carry Safety Course - For information & class schedules, call (910) 251-5689.

Teaches the aspects of the N.C. Concealed Carry-Handgun law including fundamentals of safety and basic marksmanship. Six hours of classroom and 3 hours range training.

EPA/CFC Refrigerant Recovery/Recycling Certification Exam - For information & schedule, call (910) 251-5689.

Course designed for HVAC Technical personnel to assist in meeting EPA mandated training requirements in preparation for the N.C. State Board of Refrigeration Examiners.

Leisure & Recreational Courses - For information & class schedules, call (910) 251-5689.

Courses offered in Pottery, Painting and Photography.

Computer Instructional Programs—Call (910) 251-5689 for information on classes at Fort Fisher & CFCC-Wilmington. Call (910) 259-4966/675-1439 for classes at CFCC-Burgaw, and (910) 270-3069 for classes at CFCC Hampstead.

Computer classes are offered throughout the year. New classes begin monthly. Check the various CFCC campuses for computer courses currently available.

N.C. General Contractors Residential Licensing Seminars For information, dates and times, call (910) 251-5689.

Basic Skills Division

The Basic Skills Division includes the following programs for adults 16 years of age or older, who wish to begin, continue, or expand their educational skills: Adult Basic Education (ABE), General Education Development (GED), Adult High School Diplomas (AHS), Compensatory Education (CED), English As A Second Language (ESL), Human Resources Development Program (HRD), and Adult Basic Literacy Education (ABLE). All classes are offered free at convenient times and locations. Anyone under 18 years of age must have school and parental release forms.

Adult Basic Education (ABE) Classes—For information, on dates and times call (910) 251-5641.

The ABE program is for persons 16 years or older who have not graduated from high school and who function below the 9th grade reading level. Students receive individualized instruction in basic math, language, and reading. These classes improve adults' basic skills so that they can enroll in and successfully complete their GED or Adult High School Diploma classes.

General Education Development (GED) Classes

For information on dates and times, call (910) 251-5641.

The GED program is for persons 16 years or older who have not graduated from high school and function above the 9th grade reading level. Students receive individualized instruction to prepare for the five areas of the GED exam. Persons who pass the GED will receive a high school equivalency certificate. GED classes are offered on all CFCC campuses.

Pre-GED Tests

For information on test dates and times, call (910) 251-5641.

Anyone wishing to take the GED test must first pass the Pre-GED test. There is no charge for this pretest.

GED Tests

For information on test dates and times, call (910) 251-5143.

Individuals wishing to take the high school equivalency exam must provide proof of age, identity, and N. C. residency. (A valid N. C. Driver's License or N. C. Special ID will satisfy these requirements.) A Pre-GED pass form as well as your social security number are required. The cost of the GED test is \$7.50.

Adult High School Diploma (AHS) Classes

For registration dates and times, call (910) 251-5682.

The AHS program is for persons 16 or older who have not graduated from high school and wish to obtain a high school diploma. Students take courses to complete the required 20 units and must also pass the N. C. Competency Test. To enroll, students must furnish a transcript of previous high school credits and have proper release forms if under 18 years of age.

Compensatory Education Program Classes

For information, call (910) 251-5678.

This program prepares adults with mental retardation to be self sufficient. Areas of classroom instruction include community living, consumer education, vocational education, math, social science, language, and health. Documentation of mental retardation is required before enrollment.

English As A Second Language (ESL) Classes

For more information, call (910) 251-5683.

This program is for adult students whose native language is not English. Instruction focuses on English skills that will enable students to interact effectively in the community and at the work place. Persons wishing to attend classes may enroll at the class sites.

Human Resources Development Program (HRD)—For information, call (910) 251-5686.

The Human Resources Development (HRD) Program offers continuous six-week classes throughout the year to help adults



who are unemployed, underemployed, or looking for further education. Programs are subject to change without notice.

HRD teaches job preparation skills such as resume writing, correctly completing job applications, and interviewing skills. Self-awareness, motivation, and self-esteem building are also stressed through this program. Other HRD courses are tailored to address specific areas. Examples of these are Basic Typing Refresher, and Basic Computer Refresher. Family Enrichment/Parenting classes are also offered. All HRD classes are free to the public.

Single Parent/Displaced Homemaker Program—For more information on dates and times call (910) 251-5687.

The Single Parent Program provides educational and instructional costs, and other assistance, to single parents and displaced homemakers seeking to enroll full time into curriculum programs.

Adult Basic Literacy Education (ABLE) - For more information call (910) 675-1439 or (910) 259-4966.

The ABLE program provides free self-paced computer assisted instruction. The program offers support to improve reading, writing skills and mathematics skills.

Center For Academic Enhancement

On the sixth floor in the rear of the library, students may receive individual and small group instructional facilitation in curriculum courses after submitting a signed Instructor Recommendation Form. Assistance in the Center is designed to help students acquire needed skills in their course work that enables them to be more successful in their studies.

The Center maintains a resource of software programs that students can use to review and prepare for assignments. The supplemental computer assisted instruction is available on an individual student basis. Two multimedia computers are available that provide assistance in course work and are available for student research.

The Center also offers support for courses in computer applications. Instructional facilitation is available to supplement classroom instruction and to assist students in completing assignments.

The hours of operation for the Center for Academic Enhancement are Monday through Friday, 8:00 A.M. to 10:00 P.M. and Saturday, 9:00 A.M. to 1:00 P.M.

Business and Industry Services

Small Business Center (SBC)

As one of fifty-eight member colleges in the Small Business Center Network, the SBC strives to increase the number and the success rate of small businesses in New Hanover and Pender Counties.

Services include:

- **Training** - seminars, workshops and mini-courses on business management skills.
- **Information** - A resource center for SBA publications, pamphlets, books and videos on small business topics.
- **Consulting and Referral** - One-on-one confidential counseling with business management consultants.

Additionally, the SBC is the Regional Export Center for the **EXPORT OUTREACH PROGRAM**, a workshop covering the essentials of the export process. The course is designed as a refresher for current export staffers or to bring those new to exporting up to speed.

Telephone registration is required for SBC events; call (910) 251-5696 or Fax (910) 251-5698.

Occupational Extension



Single courses designed to:

- Train individuals for employment
- Upgrade the skills of those presently employed
- Retrain for employment in new occupational fields.

Also, customized programs can be developed to meet the particular training needs of the requesting business, industry or agency.

New and Expanding Industry

The New and Expanding Industry program is designed to:

- Assist the developing infrastructure of the area
- Develop and deliver training for the production manpower of any new, relocating or expanding industry in our service area
- To encourage the development of long range training programs within industry.

Focused Industry Training (FIT)

FIT is intended for workers who need to update their skills and technical knowledge because of technological changes. Training can be held at CFCC, the firm's site or another appropriate location.

The FIT program provides for the:

- Assessment of your firm's training needs
- Development and delivery of customized training programs for skilled and semiskilled workers employed in industrial occupations.

The FIT program is offered in partnership with the Business and Industry Services Division, North Carolina Community College System.

Apprenticeship Training

Offered in partnership with the NC Dept. Of Labor, this program is designed to provide the specific skills associated with a trade. On-the-job training, combined with classroom instruction, develops the employees' hands-on-skills, and results in the award of a certificate as a journeyman in the trade.

For information on Business and Industry Services, call (910) 251-5696 or (910) 251-5699.

Film Production Programs

Wilmington is one of the leading film production centers in the country, and CFCC offers short classes and seminars in technical skills. Geared toward improving job skills and prospects, many of the seminars and classes take place in cooperation with Screen Gems Studios, the hub of the industry in the southeastern United States. Governor Jim Hunt recently announced 1995's film industry job creation as 32,840, mostly here in Wilmington. CFCC is working to help keep those jobs in our area. Some previous offerings include *Production & Location Management*, *Electricity & Light*, several *Screenwriting* seminars, *Using the Internet*, *Audio Engineering*, *Wardrobe*, *Cinematography*, *Panavision Cameras*, and more. For more information, call Bruce Evans, film production coordinator, at (910) 251-5150.

Film Production Programs

CFCC offers short classes and seminars in technical film production skills. Geared toward improving job skills and prospects, many of the seminars and classes take place in cooperation with Screen Gems Studios, the hub of the industry in the southeastern United States. For more information, call (910) 251-5150.

Distance Learning

The NC Information Highway is a partnership for the purpose of developing a fiber optic interactive-video, distance-learning network for North Carolina universities, community colleges, public schools, and medical centers. This is an interactive video network in North Carolina. CFCC has a site at our main campus and a site at our Burgaw campus.

Each site contains a classroom equipped with the monitors, cameras, and microphones necessary for interactive sessions with all sites.

Offerings on the network include two types:

Courses - Long term courses (semester/quarter length) take precedent over short term events and must be submitted through the Vice President for Instruction, 251-5125.

Short Term Events - These events should be scheduled through the Vice President for Instruction, 251-5125.

Teleconferencing

Cape Fear Community College has downlink capabilities via a satellite dish to receive teleconferences which may originate from anywhere in the nation. These teleconferences represent a wide range of interests including: Health Care, Higher Education, Law Enforcement, Small Business, Photography, plus many more.

These teleconferences are shown in the Teleconference Center (S-501) and broadcast over large screen television monitors. The Teleconference Center has a seating capacity of 50 persons.

Telecourses

Cape Fear Community College offers, on a semester-to-semester basis, various courses for credit that are delivered by television. These independent-study courses are aired on your local Public Broadcasting Service (PBS) station. As a telecourse student, you are required to come on campus fewer times than students in traditional classroom settings. You must, however, attend an orientation session and take course tests on campus. The TV programs serve as your lectures. You will have an instructor whom you should contact for any help with the course. You register for telecourses in the same manner as you would for any other curriculum course. Some courses are college transfer. Check with your advisor about particular telecourses. Refer to current schedule for telecourse offerings.



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